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ORIGINAL ARTICLES.

MALNUTRITION AS SHOWN IN CONGENITAL SYPHILIS.

BY CHARLES GILMORE KERLEY, M.D.,

A RECENT severe syphilitic infection in one or both parents results in either sterility or, if conception occurs, the death of the fetus. When there is a more remote infection or one in which the severity is less pronounced, perhaps as a result of the treatment, the pregnancy may go to term, the fruit showing marked evidences of disease; or, if the child be born apparently well, the characteristic signs of congenital syphilis appear in a month or two.

The so-called tardy hereditary syphilis, manifested by faulty development, and the well-known interstitial changes indicate a more remote infection on the part of the parents or their more successful treatment. The so-called "cured" syphilitics are the parents of tardy hereditary cases. When does the syphilitic poison in an individual completely lose its power, so that the offspring will show no signs of contamination? The answer is this: We can never promise a man or woman who has had syphilis that his or her children will be free from the disease.

Tardy malnutrition is the most remote manifestation in the offspring which tells us that the child has congenital syphilis. Syphilis is a cause of malnutrition in the early months of life, but it differs in no respect from the malnutrition associated with any other grave chronic disorder, and, as a symptom of diagnostic worth of early congenital syphilis, its value has been greatly exaggerated. When malnutrition is present in early cases, other pronounced signs are always present to explain the malnutrition. In older children, those of from three or four years to puberty, the case is different. Persistent malnutrition in the absence of apparently adequate cause and in spite of supporting treatment may mean congenital syphilis without any symptom other than malnutrition.

I have seen six cases of this nature in which the fathers of the patients confessed to having had syphilis. In three the diagnosis was further confirmed by successful antisyphilitic treatment. Two of these children were sister and brother, aged respectively five and seven years. They came under my care several years ago. Both parents were strong and vigorous. The father was forty-five, the mother thirty-three years of age; the family history was excellent. There had been no miscarriages. The patients were the only children. They had been fairly well as infants, no history of snuffles, of

marked restlessness nor of rash. The heart and lungs were negative, the muscles were soft and poorly developed; the boy had adenoids. They were undersized, underweight, slight, frail children. They became tired easily, could not bear the cold, and their appetite was always poor. The father denied having had syphilis. They had been treated by several physicians, and had been systematically dieted, drugged, bathed, oiled, and aired. When they came under my care I continued this treatment for six months, because I did not know anything better to do. The results were negative. Again I questioned the father, who confessed to having had syphilis fifteen years before his marriage. He had passed through the secondary stage, had been treated abroad, and had been told that he was cured and that he might marry with safety. I changed the treatment at once; gave bichloride of mercury, he grain, with iodide of potassium, 5 grains, three times a day. This change of treatment was followed by the most satisfactory results. In six months, under specific treatment, which was changed from time to time, the children became strong, active and well nourished, The mother, who remains ignorant of the nature of the trouble, has never quite forgiven me, because it was six months before I found the tonic her children needed.

A mother brought her nine-year-old son, at his (the son's) request, to see if he could not be made like other boys, who could play football, baseball and who could skate without having to sit down and rest every few minutes. The boy's father is a large, powerful man, weighing over 200 pounds. The mother is a strong, wellbuilt woman and maintains that she is in perfect health. She had never had a miscarriage. The family history was negative, with the exception that the mother said that the father, who was absent, had had syphilis, and remarked that the question had never before been asked her. The boy weighed 63 pounds. He was of large frame, but of very poor muscular development. The heart, lungs, kidneys, and eyes were negative. The examination further revealed that fact that both epitrochlear glands were enlarged, which was the only evidence of syphilis other than malnutrition and general weakness. He was pale and complained of being chronically tired; his appetite was poor. He had been treated by diet, baths, iron, quinine, oil, etc.. without benefit. I gave him bichloride of mercury 1/00 grain, three times a day, but made no change in diet or in the habits of life. During the next four months he gained five pounds in weight. The average gain for a boy of this age for one year is six and one-half pounds. Under the bichlo-ride, the appetite and the blood conditions improved, and there was an increase in strength and endurance. To-day, one year after beginning treatment, he weighs 70½ pounds, and to all outward appearances is a perfectly well boy. My plan of treatment in his case for one month was bichloride, ½ ograin, three times a day, and one month's rest from treatment. In this case the infection of the father dated back twelve years before the boy's birth.

The three other children varied in age from four to seven years. Two of these were brother and sister. They were from one to two inches undersized and from two to four pounds underweight. They suffered from lowered vitality and were thin, pale and delicate in appearance. Heart, lungs and eyes of each were negative. The parents were in average good health. The two fathers confessed to having had syphilis, the infection antedating conception ten years or more in both. They had been treated, pronounced cured and told to marry. The children improved satisfactorily under treatment, which was discontinued after the improvement was noticed, and they passed from under my observation.

I require all of my cases of apparently-cured congenital syphilis to report every third month.

Given a family such as this, father and mother of average health and strength, with a negative family history, child or children "delicate," undersized and underweight, with lack of endurance, low vitality, indifferent food capacity, poor appetite, I add bichloride of mercury or iodide of potassium to the treatment, regardless of the social standing of the parents, and am usually gratified, but never surprised, at the satisfactory outcome.

I have learned to look with suspicion upon puny, delicate children of parents who have average good health, when there is no discoverable reason for the malnutrition, and who persistently resist well-directed hygienic and supporting measures.

THE NECESSITY FOR SANITARY SAFEGUARDS ON THE CENTRAL AMERICAN CANALS.

BY GEORGE A. SOPER, PH.D.,

A PAPER entiled "Sanitary Aspects of the Panama and Nicaragua Canals," by the present writer, published in Medical News, January 4, 1902, has brought forth a critical reply (Medical News, February 1, 1902) from one who does not agree that both routes present conditions particularly unfavorable to health and that the Panama line has some features which give it an advantage over its rival from the standpoint of hygiene. It was hoped that the paper would bring about a general discussion which would throw more light on the conditions which will be likely to obtain if a ship canal is built across the Isthmus, but, no further criticism being apparently forthcoming, it remains to review the remarks which have been offered.

At the outset the criticism is very sweeping, for its object is to discredit the authors information or the avowed purpose of the paper, which was to inquire from a disinterested standpoint into conditions which make for or against health in the countries and along the routes which are now under consideration. To this general charge no extended reply is necessary. In the preparation of the paper, every available source of information was carefully scrutinized and a very large number of official documents and records of unprejudiced observers were examined; the facts given represent what, in the author's view, were the most significant features of this evidence in condensed form. Finally, as to bias, the author is not and has never been connected in any way with either canal enterprise, while it is to be noted that the critic announces himself as former surgeon to the company which undertook to build the Nicaragua Canal in 1889.

One of the first points of criticism has to do with the precise meaning of the term "Isthmus of Central America." To quote the words of the critic, "The writer of the article referred to also shows a lack of precise knowledge of geographical as well as political lines by confounding Central America with the Isthmus." He then declares that "Isthmus" applies only to Panama. He seems to forget the Isthmus of Darien and the Isthmus of Tehuantepec and the fact that the whole of that narrow stretch of land between North and South America is in reality a great isthmus. There is the best of authority for extending the term "Isthmus of Central America" to cover all the country between the land west of the Atrato River in Colombia and that part of Mexico which lies east of Tehuantepec. This is the sense in

which the author has employed it.

Other exceptions taken by the critic concern the healthfulness of Central America and particularly of Nicaragua. The present writer believes that conditions in Central America are not favorable to settlers of Northern birth. The critic denies this and asserts that there are many beautiful and healthful spots where large foreign colonies have lived successfully for years. It is regretted that he has not strengthened his statements by giving definite facts and that his "large colonies" are not instanced. In the limited literature of the subject, it is stated that early Anglo-Saxon immigration met with disaster. Davidson's tells of two different parties of Scotch colonists who landed at Darien and met with great loss of life through disease. In recent times the Central American Republics have offered tempting inducements to foreign settlers, but without apparently attracting "large colonies."

Nicaragua, east of the Cordilleras, is mostly

Nicaragua, east of the Cordilleras, is mostly unexplored and inhabited only by wild Indians except on the immediate coast. According to the census of 1892 the number of foreign-born

¹ Senate Doc. No. 54, 37th Congress, 1st session, Dec., 1901, p. 69.

¹ Davidson. Geographical Pathology, 1892, p. 890.

² Francis Le Baron. Monthly Bulletin, Bureau of American Republics, September, 1897, Vol. V., No. 3, p. 346.

⁴ Statesman's Year-Book, 1898, p. 797.

settlers in Nicaragua is 371, of whom 200 are Anglo-Saxons. Costa Rica, more favored in respect to population and distribution of wealth, had 792 Anglo-Saxon settlers¹ in the same year. The roads are reported as poor and the total length of railways in both countries in 1900 was 308 miles.

It is true that all climates from the torrid to the frigid are found between the lowlands and mountaintops of Central America, but it should be remembered that the climates which are available to foreigners who desire to settle permanently are only those which are reasonably accessible by railroads and navigable streams.

With respect to the health of the Maritime Canal Company's employees during their operations in Nicaragua, the critic declares with italic emphasis that carefully-kept medical records show that the death-rate among the employees at work along the route of the canal was seven-tenths of one per cent. Either this statement or the text of an official report² of the canal company to the United States Government is in error. Reference to these authoritative data shows that seventenths of one per cent. was the hospital death-rate from diseases which the Maritime Canal Company considered were peculiar to the country.

Inasmuch as the critic makes large capital of the fact that but little disease has occurred along the Nicaragua route, the reason for this apparent exemption may as well be stated. One of the Isthmian Canal Commissioners admirably explains the situation when he says: "The Nicaragua route is practically uninhabited and consequently practically no sickness exists there."

And there is an equally good reason why the death-rate observed at the time of the Maritime Canal Company's work was low. The operations of the company extended from 1889 to 1893, but a Government report' declares that: "During this period of over three years comparatively little work was accomplished." The work actually done is stated on the Isthmian Canal Commission's authority to have consisted in a single-track railroad eleven and a third miles long, thirty-nine buildings, wharves and a pier, some sea dredging and canal cuttings, the latter aggregating less than two miles in length. In addition, the company reported that several miles of timber had been felled and some rock had been removed from the Machuca rapids.

This inventory indicates that very little dangerous work was attempted by the Maritime Canal Company, while every precaution against the introduction and spread of infectious diseases known to the promoters was undertaken. Under the circumstances it is not strange that competent authorities should consider the health records of the company to have little bearing on

the conditions which would probably occur were serious work on the Nicaragua Canal undertaken.³

To the present writer the principal sanitary dangers incident to the construction of a ship canal across Central America seem fairly evident. According to the belief of the day, epidemic diseases do not spring from the earth or air de novo. They have a specific origin and this is usually to be found in the secretions and offscourings of persons who are already ill. Air, soil and water may harbor mosquitoes and other vehicles of disease and may themselves act as carriers of bacterial poisons, but they are powerless to produce an epidemic of cholera, yellow fever or typhoid, for example, unless they become infected. How the first cases are imported to a new territory can easily be imagined. In a great mass of people there are always some who are suffering from mild forms or who are in ambulant stages of transmissible diseases. Among camp-followers and the adventurous idlers who travel with armies infectious diseases are universally com-

To complete either canal, from ten to fifteen and possibly twenty thousand men would have to occupy the line for eight or ten years. The laborers would be principally Jamaica negroes and Indians, unused to restraint and unfamiliar with the principles and practices of hygiene. All would have to be sheltered, fed, disciplined and doctored like so many soldiers.

Hygiene is the precaution which science offers to safeguard the health and lives of the men. The present writer believes that the methods of sanitation and health protection which are available to-day for such purposes are adequate, if properly applied, to avoid such terrible sacrifices of life as have been witnessed in times past. That there would be difficulty in applying the principles of hygiene in the effective manner demanded he thinks should not be denied. Any argument which tends to minimize our appreciation of the dangers incident to building a ship canal across Central America is liable to do the great harm of making more remote the chance that full and comprehensive preparations to meet the conditions will be made.

As compared with the Nicaragua route, the Panama line appears to the present writer to have some distinct advantages for health, among which the following may be mentioned: The Panama route has less length of swamp to be excavated, less total length and less rainfall; fewer laborers would be required and their greater concentration on the Panama route would permit the sanitary organization necessary for their protection to be more compact and complete and consequently more efficient.

Finally, the last question to which the critic has addressed himself, the permanent sanitary condition of the canal, lends to his argument a peculiar climax. His picturesque description of "the

Annual Report of the Maritime Canal Company of Nicaragua b United States Secretary of the Interior, 1891. See Senate Executive Dec. No. 4, 32d Congress, 1st session, Dec. 19, 1891.

Senate Doc. No. 54, 52d Congress, 191 session. Dec., 1901, p. 152.

Annual Report of the Maritime Canal Company of Nicaragua to
Dec. No. 1, 52d Congress of the Interior, 1832. See Senate Executive
Dec. No. 1, 52d Congress

¹Gen. H. L. Abbott, Engineering Magazine, Vol. XXII., No. 4, Jan., 1908.

Island of Nicaragua" and his prophecy that it will become "a favorite winter resort, fully as attractive and healthy as some of our West Indian Meccas for pleasure-seekers," are not convincing proof that the lake region is, as he asserts, "notoriously healthy."

The sufficient reason why the United States is to build a canal across the Central American isthmus is that such a waterway is desired for the safe and convenient passage of American ships. The study of the sanitary aspects of the two lines which the present writer has made leads to the conclusion that, while it is within the bounds of practicability to keep either comparatively free from epidemic diseases, the Panama route would entail less risk and less expense.

A REPORT ON THE USE OF ANTIPHTHISIC SERUM T. R.

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A COMMUNICATION dated October II, 1900, from John T. Milliken & Co., of St. Louis, Mo., was forwarded to the commanding officer of the United States General Hospital, Fort Bayard, N. M., through the office of the Surgeon-General, in which an offer was made to supply that hospital with their serum in sufficient quantity to make a test of its utility in the treatment of pulmonary tuberculosis. The only additional fact of interest in connection with this offer was a request from the manufacturers that the results "whether good, bad, or indifferent, be published."

Its administration was not compulsory and in all thirty-three (33) patients submitted to it. With two exceptions the cases were of the most favorable type, and all were classified as afebrile. Ten of these cases will not be reported, as in them the serum was discontinued within a day or two for reasons not attributable to it, the patients being discharged, etc. The remaining twenty-three (23) cases have been divided into four classes as follows: (1) Those in which the serum was discontinued on account of an apparently permanent rise of temperature produced; (2) those in which there was little or no change during the period of treatment; (3) those in which there was failure during the period of treatment; (4) those in which there was improvement during the period of treatment.

The case histories, which have been written as briefly as possible, will be detailed in accordance with this classification, a short summary being appended to each. The initial dose of 5 minims was increased at the rate of 5 minims a week until the maximum dose of 15 minims was attained. The plan of increasing the dose very gradually was adopted with the idea of mitigating, as far as possible, the very disagreeable reaction that occurs in the

majority of cases at the end of the first five or six days. This reaction consists of a rise of temperature, malaise, headache, and various itching skin phenomena, urticaria, erythema, etc. But four so-called instantaneous reactions were observed during the experiments. These are most probably the result of the direct introduction of the serum into the circulation. They are extremely distressing, the principal phenomena manifested being flushing, a feeling of fulness in the head, itching, pain in the lumbar region and intense dyspnea. Fortunately they are very ephemeral, passing off in a few moments.

On April 4, 1901, the conclusion was reached that the serum was either harmful or entirely negative, and the experiments were all discontinued on this date, especially with the idea of observing the effect of its withdrawal. And, it may be added, in no case did the withdrawal have any effect whatever upon the subsequent course of the disease. In no instance has a request for its further use been received.

1. Cases in which the serum was discontinued on account of an apparently permanent rise of temperature produced. These cases were six in

number, as follows:

Case I.—Admitted January 6, 1900. Aged thirty-nine. Family history negative. Disease subsequent to malaria during the campaign in Cuba. Not a tuberculous type. Tubercle bacilli present. Lesion consisted of infiltration of both apices. Patient was received in good condition, and remained so during the entire period of observation. On October 17, 1900, injections of serum were begun. At the end of a few days the patient exhibited marked rise of temperature at night, from 101° to 102° F. The evening fever continued until the injections were stopped on November 5, 1900. Following the withdrawal of the serum, the temperature resumed previous range, from subnormal to 99.6° F. Patient was discharged February 17, 1901, in a slightly better condition than upon admission, but with tubercle bacilli still present and pulmonary status practically unchanged. Prognosis favorable.

cally unchanged. Prognosis favorable.

Conclusion.—The prompt drop in temperature following the withdrawal of the serum makes it very probable that the serum was the cause of the rise. The continued elevation of temperature was considered sufficient cause for discontinuing the treatment.

Case II.—Admitted July 10, 1900. Aged twenty-six. Family history negative. Not a tuberculous type. Disease secondary to typhoid fever. Admitted in bad condition with gross emaciation. Tubercle bacilli present; fever, etc. Lesion consisted of consolidation of the right apex, infiltration of the right lung anteriorly and left upper lobe. Following complete rest in the infirmary the temperature dropped below the febrile point, and simultaneously the general pulmonary condition began to improve. On October 17, 1900, injections of serum were begun and continued until October 24, 1900. Most aggravated erythema and urticaria associated with high

temperature (102° to 103° F.) followed the secand injection, and as these symptoms continued without amelioration the serum was discontinued on the date mentioned. Several weeks passed be-fore the evening temperature fell below the febrile point and the previous condition of affairs again obtained. Patient was discharged April 22, 1901, in very good general condition. The lesion had advanced in the upper lobes and cleared at the base. Prognosis favorable.

Conclusion.—Unquestionably the serum was

accountable for the disagreeable symptoms produced, and on account of the apparently permanent rise of temperature, etc., its further use was

not considered justifiable

Case III.—Admitted August 7, 1900. Aged twenty-seven. Family history negative. Tuber-culous type. Disease contracted while on duty on United States transport as nurse. Patient was received in fair condition and without fever. Tubercle bacilli present. Lesion consisted of con-solidation of both apices, bordered by infiltration involving the remainder of both upper lobes. The general condition gradually improved until the injections of serum were begun on October 17, 1900. Urticaria and fever followed the second dose, and as the fever continued unabated the serum was discontinued one week later, and the disappearance of symptoms followed promptly upon its withdrawal. Patient at present is considerably improved. The lesion is free from signs of activity and consolidations have resolved. Prognosis favorable.

Conclusion.—The same reason, apparently permanent rise of temperature, which dictated the discontinuance of the treatment in the preceding cases held good also in this, though no permanent injury resulted, previous conditions being quickly

re-established.

Case IV .- Admitted August 11, 1900. Aged thirty-one. Family history negative. Not a tuberculous type. Disease secondary to dysentery contracted in the Philippine Islands. Upon admission the patient was in good general condition and presented a small area of disease—infiltration of the right apex-which was, however, associated with great activity, enormous numbers of tubercle bacilli and a marked febrile tendency. He never did well, and on October 17, 1900, injections of serum were begun. As the tempera-ture immediately became still further aggravated it was withdrawn five days later. Disease rapidly progressed, and patient was discharged with an unfavorable prognosis, being readmitted a few months later only to die in a short time of intestinal tuberculosis.

Conclusion.—Serum treatment was, of course, not indicated in this case. It was only used at the earnest solicitation of the patient, and the exacerbation of temperature caused was sufficient

reason for its prompt withdrawal.

Case V.—Admitted September 3, 1900. Aged twenty-three. Family history positive. Disease llowed a severe cold. Not a tuberculous type. Was received in good general condition. Afeb-

rile. Tubercle bacilli present. Lesion consisted of slight infiltration of the right apex. Improvement began at once and continued until injections of serum were begun October 17, 1900. Within a day or two the temperature began to exhibit a constantly increasing tendency, and on this account it was withdrawn November 13, 1900. A day or two later the temperature resumed its former range, subnormal to 99.2° F. Patient was discharged improved with bacilli still present, January 5, 1901.

Conclusion.—The exacerbation of temperature

was doubtless the result of the serum and dictated

its prompt withdrawal.

Case VI.—Admitted October 2, 1900. Aged twenty-eight. Family history negative. Received in poor general condition. Tubercle bacilli present. Lesion was consolidation of the right apex and infiltration of the remainder of the right lung anteriorly and of left apex. In general the course of the disease has been progressive since admission, with occasional periods of fever. On October 17, 1900, injections of serum were begun and discontinued two weeks later on account of an apparently permanent rise of temperature produced. It was not until six weeks had passed that the temperature resumed its former range, below 100° F. at night. The patient is still un-der observation; the lesion has markedly in-

creased, and the prognosis is unfavorable.

Conclusion.—The serum is of course not accountable for the steady retrogression in this case, it was withdrawn solely on account of the

exacerbation of temperature produced.

2. Cases in which there was little or no change during the period of treatment. There were five

cases in this class as follows:

Case VII.—Admitted February 5, 1900. Aged thirty-one. Family history negative. Not a tuberculous type. Disease resulted from exposure during the campaign in Porto Rico. Patient received in good condition. Lesion consisted of slight infiltration of both apices. Tubercle bacilli present. Afebrile. Injections of serum were begun October 17, 1900, and discontinued April 4, 1901, to observe effect of withdrawal. Shortly after the injections were commenced the temperature fell to normal, where it has remained since, the withdrawal of the serum on April 4, 1901, having no effect whatever. During the use of the serum the right apex consolidated and subse-quently resolved. The pulmonary status is now practically what it was on admission, though the general condition is much better. Tubercle bacilli never disappeared. Patient is still under observa-tion, and ultimate recovery is anticipated.

Conclusion.—As the treatment manifestly had no influence in preventing consolidation, it is not reasonable to attribute to it the subsequent resolution of the consolidated area. Both this and a fall in temperature to the normal are so frequently observed as the result of non-specific treatment that they must needs occur much more frequently than they do to be attributed to the action of the

Case VIII.—Admitted May 14, 1900. Aged twenty-eight. Family history negative. Disease began insidiously at Jackson Barracks, New Orleans. At the time of admission initiatory symptoms had mostly disappeared, and it required the tuberculin test to substantiate the diagnosis of tuberculous infiltration of the right apex. Patient was apparently in perfect health. Following the tuberculin test the temperature became 99° F. at night. Bacilli, cough, and expectoration did not develop until November, 1900. On February 18, 1901, injections of serum were commenced. Within a few days the evening temperature became normal and a drowsiness in the late afternoon developed. Otherwise the status remained unchanged. April 4, 1901, the serum was withdrawn, with no effect whatever except the relief of the drowsiness mentioned. Bacilli are still present. Prognosis is good.

Conclusion.-In regard to the drop in temperature during treatment, the remarks which closed Case VII. seem equally as applicable to this. The negative effect of the withdrawal of the serum apparently substantiates this opinion.

Case IX.—Admitted June 26, 1900. Family story negative. Tuberculous type. Disease sec-Family history negative. Tuberculous type. ondary to malaria contracted in Porto Rico. Though the lesion was comparatively insignificant, infiltration of right apex and posterior base, the general condition was very poor at the time of admission. Though classed as afebrile, there has always been a tendency to fever from slight causes. Tubercle bacilli constantly present. The general condition improved slightly, and October 17, 1900, injections of serum were commenced. Following a very severe instantaneous reaction January 14, 1901, patient refused further treatment. No objection was made, for latterly the weight had diminished and evening temperature was persistently over 100° F. Following the withdrawal of the treatment patient gradually improved and regained condition which existed previous to the beginning of the injections. Prognosis is not favorable.

Conclusion.—The effect of the serum in this case has been interpreted as negative; for, the history has been one of alternating slight improvement and retrogression, and it would not, of course, be reasonable to attribute to the serum what had already occurred several times without it in the same case.

Case X .- Admitted July 6, 1901. Aged thirtysix. Family history positive, Full-blooded negro. Not a tuberculous type. Disease secondary to malaria and dengue fever in the Philippine Islands. Patient was received in excellent condition. Afebrile. Bacilli present. The lesion was slight infiltration of both apices. There has been no change in condition since admission. Injections of serum were begun February 18, 1001, and continued until April 4, 1901, when they were discontinued to observe the effect of withdrawal. No apparent change resulted, and patient states that he does just as well if not better without it. Prognosis very good.

Conclusion.—Though the period of treatment was short it was entirely without effect.

Case XI.—Admitted January 21, 1901. Family history negative. Not a tuberculous type. Disease secondary to malaria contracted at Washington Barracks. When admitted patient was apparently in the best of health and has remained so. He was without fever. Bacilli present. The lesion was slight infiltration of the right apex. He received the serum from February 1, 1901, to April 4, 1901, when the treatment was discontinued to observe effect of withdrawal. Patient states that he never missed the serum in any way. Bacilli persist and condition has not changed appreciably. Prognosis very good.

Conclusion.—As in the previous case the re-

sult has been interpreted as negative.

3. Cases in which disease progressed during the period of treatment.' There were six cases in this class as follows:

Case XII.—Admitted August 13, 1900. Aged twenty-five. Family history negative. Not a tuberculous type. Disease secondary to malaria and dysentery in the Philippine Islands. On admission general condition was poor. The lesion was active infiltration of the left lung and right apex. The case was afebrile, and bacilli were present. At first general and pulmonary condition rapidly improved. October 17, 1900, injections of serum were begun. During the period of treatment the patient slowly failed, losing in weight and the temperature exhibited a gradual, but constantly increasing tendency. On this account it was withdrawn January 1, 1901. Almost at once the temperature fell to normal and improvement again began and continued up to the time he was discharged at his own request April 3, 1901.

Conclusion.—The retrogression that commenced simultaneously with the use of the serum and which promptly ceased upon its withdrawal can have but one interpretation; viz., the serum proved injurious.

Case XIII.—Admitted November 14, 1899. Aged thirty-two. Mother died of pulmonary tu-berculosis. Tuberculous type. Disease secondary to malaria contracted during the Cuban campaign. At the time patient came under observation general condition was poor and lesion consisted of infiltration of the right upper lobe and left apex. Bacilli present. Afebrile. From the first the patient rapidly improved, and within a short time the temperature became normal. He received injections of serum from March 25, 1900, to May 1, 1900. At the end of the first week a very severe reaction occurred. As long as the treatment continued the evening temperature never again became normal; on the contrary, it showed a constant tendency to increase. During the third week there also developed aggravated intestinal symptoms with severe pain an hour or two after eating, nausea, and anorexia. Weight also diminished. After the discontinuance of the injections, all these symptoms ceased, the temperature again became normal, and general progress towards health was resumed. The patient is still

under observation and has improved very much, though bacilli associated with physical signs of a slight infiltration of the right apex persist. Prognosis good.

Conclusion .- As in the previous case the retrogression which heralded the initiation of the treatment and the prompt disappearance of symptoms which followed its withdrawal can only be inter-

rupted as a result of the treatment.

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Case XIV.—Admitted March 3, 1900. Aged forty-three. Family history negative. Not a tuberculous type. Disease secondary to exposure in Alaska. When received patient was in fair condition and lesson was consolidation of both apices, with an old dry cavity posterior on left side. Case was afebrile. Bacilli present. The disease was apparath, carrented at the time of admission though ently arrested at the time of admission, though the patient was about twelve pounds under weight. Shortly after admission improvement began, with disappearance of bacilli from the sputum, and was maintained up to the time patient began to receive the injections on October 17, 1900. Almost at once the temperature manifested a constantly increasing tendency (101.5° F. to 102° F.). There was also a great increase in cough and expectoration. Bacilli reappeared and became a constant feature of the sputum, and the lesion began to extend. The withdrawal of the serum on December 26, 1900, was followed by a cessation of symptoms. The temperature again became normal. Signs of activity over the lesions disappeared and patient improved, being discharged February 8, 1901, in somewhat better condition than on admission, though bacilli per-

Conclusion.—The treatment excited an apparently quiescent disease. The case is of unquestionable significance in the light of the fact that bacilli had been absent from the sputum for some

time previous to the beginning the treatment.

Case XV.—Admitted March 1, 1900. Family history negative. Not a tuberculous type. ease secondary to exposure while in the Philippine Islands. Patient in good condition when admitted. Afebrile. Bacilli present. Lesion was infiltration of both apices. The patient, who was one of the physicians on duty at this hospital, il-lustrated the type of the disease that is complicated by asthma. He received injections of serum from July 26, 1900, to September 26, 1900. During the treatment the evening temperature became 99.6° F.; weight diminished, and the patient did not feel so well. The treatment was discontinued at his request. The temperature returned to normal after the withdrawal of the serum, the weight improved; etc. He was discharged November 27, 1900, in somewhat better health, but with the lesion practically unchanged and bacilli still present. Prognosis favorable.

Conclusion.—The opinion of the patient in this case is entitled to consideration. He requested that the treatment be discontinued; for, he said, "Its effect was either negative or it caused the

exacerbation of temperature."

Case XVI.—Admitted November 20, 1899, Aged twenty-four. Family history positive. Not a tuberculous type. Disease secondary to typhoid fever during the campaign in Porto Rico. Patient was in good condition and lesion consisted of infiltration of the right apex and base. Afebrile. Tubercle bacilli present. General health and pulmonary condition rapidly improved, and he re-mained in excellent condition until the fall of 1900, when he began to fail slightly. October 17, 1900, injections of serum were begun and continued until March 1, 1901. During the treatment the right apex consolidated and excavated. The left apex became actively infiltrated. As the treatment was manifestly without influence in preventing or controlling the extension of the lesion it was withdrawn on the date mentioned. Some time later the patient again began to improve, and at present the disease is apparently arrested and the general condition improving.

The prognosis is favorable.

Conclusion.—Failure had begun previous to the initiation of the treatment and continued in spite of it. In consequence the effect in this case

has been interpreted as negative.

Case XVII.—Admitted January 25, 1901.

Aged twenty-two. Family history negative.

Not a tuberculous type. Disease followed exposure in the Philippine Islands. When admitted was in good condition. Lesion consisted of infiltration of the right upper lobe. Afebrile. Tubercle bacilli present. He received injections of serum from February 18, 1901, until his discharge April 5, 1901. Previous to the beginning of treatment patient did not show any tendency to improve, on the contrary, he lost weight and the lesion progressed. During the period of treatment the right upper lobe consolidated.

Conclusion.—The effect of the serum was considered negative, as the patient exhibited a tendency toward retrogression before it was begun, as well as during the period of its administration.

4. Cases in which there was an improvement during the treatment. There were six cases in this class as follows:

Case XVIII .- Admitted May 31, 1900. Family history positive. Disease secondary to malaria in the Philippine Islands. Patient was received in good condition. The lesion was consolidation of the right apex and infiltration of the left. Afebrile. Tubercle bacilli present. In general it may be said that there has been a slow but constant improvement in this case, both in general and pulmonary condition. The serum treatment was begun October 17, 1900, and discontinued April 4, 1901. During the period of its use the improvement continued the same as previously, apparently being neither accelerated nor retarded by the treatment. Some time after the injections were begun the temperature fell to normal, where

it has remained since. Patient states that he is doing fully as well without the serum. Bacilli persist. Prognosis favorable.

Conclusion.—In view of the fact that the rate of improvement continued the same both before and during the period of treatment the result has

been interpreted as negative. Case XIX.—Admitted July 10, 1900. Aged thirty. Negro (half-blood). Family history unknown. Disease followed exposure in the Philippine Islands. At the time of admission was in very good condition considering an advanced stage of pulmonary and laryngeal disease. The lesion was consolidation of the right upper lobe with large dry cavity in this area. Vocal cords were ulcerated. Afebrile. Tubercle bacilli present. He improved from the first and just before injections of serum were begun on October 17, 1900, examination showed him to have regained his normal weight and to be in very good general condition. The ulcerations in the larynx had healed, though destruction of the cords had resulted in almost complete aphonia. The improvement in pulmonary condition was no less marked, the consolidated area had resolved, cavity healed and disease consisted of infiltration of right upper lobe and left apex. Treatment was discontinued November 6, 1900, at which time the patient was discharged at his own request. Condition at this

time had not changed since previous examination.

Conclusion.—Though the period of treatment was very short the case has been included not only because it is of much interest apart from the subject of antiphthisic serum T. R., but also because the temptation to draw attention to another feature cannot be resisted. If the treatment with serum had been begun at the time of admission, the conclusion would have been almost inevitable that the serum influenced or achieved the remarkable result.

Case XX.—Admitted November 26, 1900. Aged thirty. Family history negative. Tuber-culous type. Disease followed exposure in the Philippine Islands. On admission was in good condition. Lesion was infiltration of the right apex. Afebrile. Tubercle bacilli present. Improvement began at once and has continued to date. Injections of serum were commenced December 20, 1900. During February, 1901, cough and expectoration ceased and have since been absent. On March 1, 1901, the treatment was discontinued at the request of the patient as he had recently lost a few pounds in weight. At the present time, with the exception of the presence of signs of non-active infiltration of the right apex, and being a few pounds under weight, the patient is apparently well. He states that he has done fully as well without the serum.

Conclusion.—The result has been considered negative as the improvement anticipated the treatment and was maintained after its withdrawal. The cessation of cough and expectoration is frequently observed at this hospital in the absence of specific medication.

Case XXI.—Admitted October 11, 1900. Aged

thirty-six. Family history negative. Not a tuberculous type. Disease began insidiously in the
Philippine Islands when patient was much debilitated by the climate. Patient was received in
very good general condition, and the lesion consisted of slight infiltration of the right apex.
Afebrile. Tubercle bacilli present. Improvement and change in character of the sputum began at once and within a few days
after the injections were begun, October 17, 1900,
bacilli disappeared from the sputum, and have
since been absent. The temperature, however, remained unchanged, averaging 99.2° F. at night.
April 4, 19019 the treatment was discontinued to
observe effect of withdrawal. Since the injections were stopped the status of the case has remained unchanged. Prognosis favorable.

Conclusion.—The result was considered negative for the same reason applied in the previous

Case XXII.—Admitted October 2, 1900. Aged twenty-seven. Family history positive. Not a tuberculous type. Disease followed exposure in the Philippine Islands. Patient was received in good condition. Lesion was slight infiltration of both apices. Afebrile. Tubercle bacilli present. Improvement began at once and continued up to the time of discharge, December 6, 1900. October 17, 1900, the injections were begun and continued as long as patient was under observation, at which time, though bacilli persisted, cough and expectoration had almost ceased. General condition was normal. Prognosis very favorable.

was normal. Prognosis very favorable.

Conclusion.—The improvement was continued at the same rapid rate after the injections were begun as before, and, in consequence, the treatment was considered negative.

Case XXIII.—Admitted August 21, 1900. Aged twenty-one. Family history negative. Tuberculous type. Disease secondary to pleurisy in the Philippine Islands. Received in good condition with consolidation of the right apex and slight scattered infiltration of the remainder of the right lung anteriorly. Afebrile. Tubercle bacilli present. Improvement in general and pulmonary condition began shortly after admission, and has continued to date. October 17, 1900, the injections of serum were begun and continued until April 4, 1901. During the treatment the temperature, which had previously averaged slightly above normal at night, fell to normal and the bacilli disappeared from the sputum. The patient now enjoys very good health and is classed as convalescent, the withdrawal of the serum apparently not having influenced the subsequent course of the case in any way.

of the case in any way.

Conclusion.—The effect of the treatment was considered negative for the same reasons as in previous cases in this class.

Summary of Class 1. In this class the serum was discontinued on account of the apparently permanent rise of temperature produced. The elevation of temperature continued as long as the serum was used. In a disease in which one of the

first objects of treatment is maintainance of an approximately normal temperature, an agent which manifestly causes a rise cannot, of course, be tolerated. Seemingly, in this class, there was

an idiosyncrasy against the serum.

Summary of Class 2. In these, in which little or no change occurred during the treatment, the action of the serum was negative. The cases ilustrate that chronic type of pulmonary tuberculosis in which changes either for better or for worse are very slow and periods of improvement and retrogression are often encountered, but which are for the most part stationary. The treatment was obviously without effect.

Summary of Class 3. In at least three cases, viz., XII., XIII., and XIV., there is every reason to have hear positively detail

Summary of Class 3. In at least three cases, viz., XII., XIII., and XIV., there is every reason to believe the serum to have been positively detrimental. In the cases mentioned the period of failure dates from the beginning of treatment and ceased with its withdrawal. In Case XV. it is at least probable that he serum caused the rise of temperature, and in the remaining two cases it was apparently negative.

Summary of Class 4. In the six patients composing this class, in which improvement occurred during the treatment, we are not inclined to attribute it to the action of the serum; for, taking the same number of equally favorable cases, the results obtained without any specific medication will be fully as good. This has been demonstrated at this hospital, as may be seen by reference to the Annual Report.

Every effort has been made to be perfectly fair in the recording of these experiments, and in submitting this report I feel that this has been ac-

As has been seen, the patients who received the treatment were, with few exceptions, all very favorable indeed, and excluding those in whom there is every reason to think the serum positively injurious, we see illustrated exactly what occurs during a limited period of non-specific treatment; viz., in a certain proportion of cases there is improvement, in others the condition remains stationary and in still others there is retrogression.

In my opinion the results obtained with this treatment are nearly comparable with those obtained without it, and for this reason I believe that those who have spoken favorably of this agent have unwittingly interpreted what occurs naturally as a result of proper hygenic surroundings in such a large proportion of tuberculous cases as the effect of this serum.

In using one therapeutic agent exclusively in the treatment of any self-limited disease, and pulmonary tuberculosis is often that, it is very easy to ascribe as the result of treatment what occurs naturally in a proper environment.

Harditary Cerobellar Ataxia.—In the March number of the Journ. of Nervons and Mental Disease, H. T. PATRICK gives a critical résumé of reported case of this rare condition. He holds that there is no set disease entity and that what is so designated is a form of Friedreich's disease.

SIMPLE TRAUMATIC SYNOVITIS OF THE KNEE.

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This common condition is so often either neglected or carelessly treated that I have felt justified in bringing it to your attention, although the subject may appear trivial beside the surgical topics of major interest which crowd medical literature to the exclusion of such humble, though practical, subjects as this. But time and the usefulness of patients, to say nothing of their comfort, are sacrified to perfunctory attention to these cases, which may drag along for months, now better, now worse, unless treated correctly, but, above all, thoroughly.

but, above all, thoroughly.

The term "simple traumatic synovitis of the knee" applies to a large class of cases following injury to the joint. It is chosen as a name because it refers to the cause of the condition present and excludes cases of bacterial origin and such complications as free bodies in the joint or loosened cartilages,

Among 150 patients treated in St. Luke's Hospital in the surgical clinic for the results of injuries to the knee, more than one-third (54) had simple traumatic synovitis. The records of these cases form the basis of this paper.

The typical case is met with in the young male. He limps in with extended knee, seldom using a cane, and tells of a wrench or bruise received several days or weeks before. The pain at the time of injury was severe, but not approaching the agony of a loosened semilunar cartilage or locked floating body. Since the accident he has had a varying amount of swelling about the knee and moderate disability, most noticeable on climbing stairs. On arising in the morning the stiffness and disability have been severe, but with moderate use the joint has limbered a little. It is this easing of the symptoms from time to time which has caused the patient to look upon his trouble as a slight sprain, soon to wear off; but the continuance of symptoms, with increase after the slightest knock or twist of the knee, has finally brought him to the doctor.

The joint is seen to be swollen with serous effusion, and is slightly tender on firm pressure everywhere, with perhaps one point especially so over the site of a bruised spot or stretched ligament. Full extension is possible, but flexion to a right angle is painful, and the limp is due more to the voluntary checking of flexion than to any pain of joint contact. The subjective symptoms may be of such moderate severity that the patient will demur when told that it will be necessary for him to wear a splint for many days and

perhaps for weeks.

Pathology.—The changes in the course of a simple traumatic synovitis of the knee do not differ materially from those met with in other soft tissues. At first there is hyperemia followed by swelling and exudation of fluid both into the

¹ Read before the Medical Society of the Alumni of St. Luke's Hospital, Dec. 13, 1501.

membrane itself and into the articular cavity. The swelling is greatest about the loose folds in the ligamenta mucosa and alaria, which overlap the cartilages, their redness contrasting strongly with the pearly whiteness of the latter. Under the microscope there is seen to be much cell exudation into the perivascular spaces, with swelling and softening of the connective tissue by the extravasated fluid. The dilated capillaries occasionally give way and cause minute extravasations of blood to occur. The leucocytes escape into the substance of the membrane itself, and also penetrate between the endothelial cells and reach the articular cavity. The endothelial cells appear to multiply with unusual rapidity, and are cast off from the surface in considerable numbers.

In the earliest stages the synovial fluid is simply increased in quantity, but as the inflammation progresses the normal secretion is mingled with serum in varying proportions and afterward with fibrin and with red and white corpuscles. At first the fluid is clear, but later it becomes cloudy, opalescent or blood-stained. In cases in which the traumatism has been severe there are considerable extravasations of blood into the joint. This blood usually remains fluid owing to its admixture with the serum and synovia, as well as because of the smooth endothelial lining with which it is in contact. When the process undergoes resolution, the exudation ceases, the vascularity subsides, and the exuded fluid is absorbed. Extravasated blood delays resolution by its presence.

When the synovitis is not properly treated and drags along for months, there is little hyperemia, but a good deal of swelling and finally thickening from proliferation of fibrous tissue in the membrane. In these long-standing cases the fluid is clear and consists chiefly of serum, which may contain small shreds of fibrin or melon-seed

Etiology.—More than two-thirds of the cases were in males, their habits and occupations being of course to blame. Except at the extremes of life, age has apparently little to do with the liability to traumatic synovitis, since in this series of cases, at least; the number occurring in each decade of life was about the same. Children in arms are naturally less liable, and in the aged no doubt fractures of the lower extremity often result from injuries which might have caused but a traumatic synovitis in a younger person.

The violence which causes a simple effusion into the knee-joint is about twice as often direct as indirect, and it is surprising how mild are some of the cases in which the force has been great and what severe lesions may follow seemingly trivial injuries about the joint. In the excitement of a game or trolley-car accident, the initial traumatism to the knee may have passed unnoticed, while, again, it is common to see severe abrasions or ecchymoses about the knee without any effusion into the joint. In these cases the direction of

the blow or the padding of soft parts has preserved the synovial membrane from injury.

The commonest form of indirect violence causing these effusions is a sprain about the internal aspect of the joint. These sprains are usually sustained by forcible abduction of the leg while the knee is partly flexed, or by outward rotation, both of which are checked by the internal lateral ligament. Sprains of the coronary ligament, especially the internal, may cause a general synovitis without being severe enough to allow a displacement of the semilunar cartilage. In cases of synovitis after a sprain, the tender spot over the stretched or torn fibers of a ligament may persist long after the effusion into the joint has disappeared.

Symptoms.—The subjective symptoms appear mild, as a rule, when the size of the knee-joint and its burdensome work are considered. As a matter of fact, the patients in this series of cases presented themselves for treatment on a average of eleven days after the beginning of symptoms, and then it was for the relief of disability rather than of pain that they applied, and oftener on account of the long continuance of symptoms than of their severity. The disability is noticed most when attempting to climb stairs and the stiffness and feeling of weakness become urgent when the patient attempts to walk more than a short distance. As for actual pain, the rule holds good which says: "Joint inflammations of bacterial origin cause pain which is increased with movement of the joint, while in traumatic forms the reverse is often the case. When the patient moves about the pain subsides, but it recurs on resuming movement after a considerable rest."

Tenderness on pressure over the synovial membrane everywhere, but emphasized over some point of contusion or sprain, is the rule, but has its exceptions. There is no noticeable tenderness, general or localized, in many of the milder cases. Here the point of sprain may be inaccessible to palpation. Extreme tenderness over the whole distended capsule is not found in simple traumatic synovitis, but occurs in the graver forms of bacterial origin. The greatest tenderness and the greatest pain in the simple cases occur when the amount of effusion is large and the joint capsule

excessively distended.

Objective Symptoms.—Inspection shows the contour of the joint to be changed by the presence of the effusion into the capsule. The shape assumed is the same in knee-joint inflammations of whatever nature so long as the lesion is confined to a serous synovitis. The swelling is greatest in front, in the synovial pouches, which extend under the vasti muscles to a level of two inches or more above the patella on either side. There is also bulging of the mass of fat on either side of the patellar tendon. The patella itself is raised from the condyles by the fluid in the joint when the leg is extended, and the familiar symptom of floating is produced. Fluctuation of the joint is obtained when there is enough fluid presence of the patella when there is enough fluid presence.

ent to float the patella. But there may be so slight an excess of fluid as not to raise the patella unassisted and yet the presence of which it is impor-tant to determine for the sake of correct diagnosis and treatment. This is accomplished while the knee is extended by grasping the thigh just above the patella, so as to force down under the patella from the upper pouches whatever fluid may be contained in them, when the patella, struck over its center by the end of a finger, will be felt to knock against the condyles and produce the well-known patellar tap. J. P. Fiske (Med. Rec., Vol. LIII., p. 376) describes a method, now much used, of determining the presence of small effu-sion into the knee-joint. The patient stands with extended knee, bending forward at the hips, with each hand resting on the anterior surface of the thigh at about its middle. The rectus femoris is thus relaxed and any fluid present settles behind the patella. The characteristic tap against the condyles of the femur is then obtained by a smart rap against the center of the patella. In the cases in which this procedure elicits the tap, the other side should be examined in the same way, for if there be enough fat below the patellar tendon to make it appear to float a little, the condition will be found to be symmetrical. In passing it may be well to say that both knees should always be examined, as there are several conditions causing symmetrical effusion into the joint.

Measurement of the circumference of the joint will show it to be one-quarter of an inch to two inches greater than that of the sound knee, according to the amount of effusion present. The measurement should be made at the lower and upper edges of each patella, for there is no little normal variation in the length of patellar tendons. When the tendon is unusually long, the effusion will raise the lower margin and give a greater increase here than above. Measurement of the circumference is a comparatively rough test, but is used from time to time to determine the increase or decrease in the amount of effusion. The color of the skin remains unchanged in these cases, even when the swelling is considerable.

The true involuntary spasm occurring in tuberculous disease is absent, and the joint may be fully extended without pain. Indeed, many of these patients naturally keep their leg in a position of full extension and I have never seen one of them carrying his knee flexed beyond twenty degrees. At any rate, it is very rarely that the fully-extended position gives discomfort. Flexion beyond a right angle is seldom permitted, even in cases with but a small effusion, and when the joint capsule is much distended flexion may be limited to a few degrees.

Passive motions may be carried further than active motions, if the examiner is gentle and has the patient's confidence, because of the disturbance which active motion causes in the joint by reason of the intimate connection of the neighboring tendence with the

ing tendons with the capsule.
We are constantly informed that the position of

greatest ease to any inflamed joint is one of more or less flexion, but I believe that in the case of the knee-joint this statement is misleading, and that it is true only in such cases, for example, as tuberculous arthritis, in which there is spasm of the muscles of thigh and leg, or a mechanical derangement to interfere with full extension. If this be true, its practical bearing upon the treatment will be seen to be important. Atrophy of thigh and calf from disuse of the muscles is usually present after the first two weeks, but is never prominent. The body temperature is normal.

Course.—The average duration is about five weeks under immobilization in a well-marked case. Without treatment the course is much more protracted, and even after apparent cure many cases tend to recur persistently without being really chronic. This tendency to recurrence is a strong incentive to careful attention and intelli-gent treatment. There is usually a mechanical reason over and above further traumatisms, for repeated attacks. Sometimes lax ligaments may be to blame; again a more or less permanently stretched capsule, with poor support from weakened muscles, may be the underlying condition. The usual course seems to be shorter in children under twelve and longest in men who refuse or neglect treatment. Twelve days is a short time for a simple traumatic synovitis of the knee to last, but six months is not an unusually long time. The tendency to the formation of adhesions seems to be much less than is the case in some other joints,-notably the shoulder.

Diagnosis.—After having ruled out the presence of a misplaced semilunar cartilage by the history and by palpation along the edge of the articular surface of the tibia, the remaining conditions to be excluded in making a diagnosis of simple traumatic synovitis of the knee are as follows: Tuberculosis, rheumatism, gonococcic infection, syphilis, hematoma, "quiet effusion" of Bennett, hysterical joint.

There can be no doubt that some cases of tuberculous arthritis of the knee begin as a simple traumatic synovitism, but just when the invasion by the bacilli commences it is hard to determine. When true spasm intervenes, soon followed by increased atrophy of thigh and calf, with heat about the joint and afternoon pyrexia, the diagnosis will be clear. Morphological and biological examination of the effusion in obscure cases, or even the tuberculin test, may be called for.

In acute rheumatism there are fever, local redness and great tenderness, with a rheumatic history and probably involvement of other joints. In the chronic forms of rheumatism there are apt to be more ankylosis with changes in structures other than the synovial membrane and a rheumatic history together with the age of the patient to guide one. Joint crepitus is common in these cases. In a patient of the rheumatic diathesis a long-continued traumatic synovitis of the knee may give more trouble in damp weather and call for antirheumatic treatment.

The absence of urethritis will exclude the presence of a gonorrheal synovitis, but what is apparently a simple traumatic case occurring in a patient with specific urethritis should be treated as though it were of the more serious nature, and its course will soon demonstrate its true character.

The syphilitic knee of the secondary stage will be less apt to confuse one than the synovitis with effusion occurring in congenital syphilis as seen in children; but here the condition is regularly symmetrical and there will probably be a specific his-

Hematoma of the knee-joint follows a more severe grade of injuries than those usually the cause of simple synovitis. In large hemorrhages there will be clotting and a boggy feel, instead of the clear fluctuation, and in two or three days ecchymoses will appear in the skin. The hysterical joint, of course, shows no effusion. W. H. Bennett, in the London Lancet, describes a condition which I have never recognized. It is a "quiet effusion into the knee-joints occurring in women and young girls" which is always bilateral and is seen at puberty or at the menopause or in connection with menstrual difficulty. I have never seen so-called idiopathic synovitis of the knee occurring after exposure to cold and wet, though described by many writers, among them Billroth.

Treatment.—The remedial measures are mainly mechanical. Rest, complete or partial, counts for more than do all other means combined, but it is often discontinued too soon. In these cases of simple traumatic synovitis of the knee it is certain that unless the symptoms are unusually severe, little is to be gained by absolute rest. When the patient can earn his living with the joint immobilized he should be allowed to walk about while wearing the customary splint. A plaster splint encasing the leg and thigh from ankle to perineum is all that is required in the way of apparatus. Rest in bed or extension is not needed; and for this reason the contact of the condyles with the head of the tibia as in standing, or their impact while walking, is not the factor which keeps up the synovitis. We have seen that it is the ligamenta alaria and mucosa and their folds which are the parts most inflamed, and not the articular surfaces of the bones. Moreover, the patient will not show pain if the bottom of the heel is smartly struck, or if he steps heavily upon his heel while the knee is extended. The rest employed as treatment need apply only to flexion and rotation, for it is clearly these motions that stretch or subject to strain those structures which were injured during the initial traumatism, and which should now be at rest.

If properly applied, the plaster splint may be worn for three or four weeks; it is then removed and the joint examined, and, if necessary, the old cast may be reapplied or a new one substituted. It is idle to temporize with these cases of traumatic synovitis of the knee; they must be immobilized so long as there is any excess of fluid in the joint or a continuing point of distinct tenderness about the ligaments; to discontinue immo-

bilization too soon commonly results in a fresh recurrence of symptoms, or at best a protracted course of those already present.

The reason for putting up the leg in a position of full extension is obvious; besides removing strain from the structures about the front of the joint, it allows the bodily weight to be supported upon a column as nearly upright as possible, and prevents jamming of the patella against the confining splint. It is unwise to leave a fenestrum in the splint to allow occasional examination, because the pressure is then unequally distributed over the joint. It will also interfere with resolution and, at best, allow but unsatisfactory methods of examination.

If the patient be seen within the first twentyfour hours, massage may be employed gently over the joint itself, but more vigorously to the thigh above to promote and clear the way for absorption of the effusion. It is also decidedly grateful to the patient. During the stage of active inflammation there must be rest; later, when the active symptoms are subsiding or when of more than six weeks' duration, with effusion still present in a flabby capsule, massage without motion of the joint hastens absorption. It is at this stage that tight strapping and counterirritation are of real service, but they must be continued for some time

a week at least. As for rest in bed, wet dressings, cold applications, etc., during the first few hours after injury, they are of course demanded if the pain, redness and swelling be severe, but such cases are usually accompanied by more serious lesions than the sprains or contusions resulting in simple synovitis. Aspiration is required only in rare cases of excessive disten-tion and tenderness, and should be done aseptically and be followed by firm strapping and bandaging.

There seems to be no royal road to recovery, but, provided the case be uncomplicated, there is a sure road and that road is rest.

THE THERAPEUTICS OF CUTANEOUS DISEASES.

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I BELIEVE that affections of the skin are much overtreated, and that many of them would recover more quickly if a close attention were paid to hygiene, diet, and the patient's habits, without medicines, the application or administration of which, without attention to these points, often works disaster. The manufacturer is daily putting out preparations that, according to the easily-acquired testimonials, are cures for the various dermatoses. The makers of patent medicines preach daily through the public press that they have found a certain cure for all skin diseases. The preparation is usually a lotion or an ointment. This has educated the laity up to the idea that skin diseases are purely local, while the legitimate pharmaceutical preparations for local

medication have had a similar influence upon the

medical profession.

The diseased skin cannot be studied as a structure independent of the other organs of the body any more than you can study pathological conditions of the heart, brain, or kidney, without taking into account the inter-relations of the different organs to each other; each is only a part of the whole and each is influenced for good or for ill by the condition of the others. Drug administration or application plays an important part in the treatment of general diseases and medication is just as important in dermatological affections. We should be optimistic regarding the results to be obtained from the use of medi-cines, having an abiding faith in the drugs that we use, but let that faith be based on the actual knowledge of the action of the drug we are using, and not on mere hearsay, and then, the actual condition being understood, the therapy will be correct.

Here I want to call attention to a familiar fact, but one that is often overlooked, and that is the idiosyncrasy existing in certain individuals whereby the ingestion or application of drugs is followed by a decided effect upon the cutaneous structures which is unusual and may be called an untoward effect. These skin manifestations do not seem to be dependent upon the amount of the drug used. A few drugs that are in com-mon use are in some individuals followed by eruptions of the skin. Quinine is one of the most frequently prescribed drugs in the Materia Medica; a single dose of one-eighth of a grain of this drug in an adult has been followed by an erythema attended by a severe pruritus, lasting for several days and finally ending in desquamation. J. C. White and Stellwagen mention cases in which the single application of a hair-wash which contained quinine was followed by an erythematous rash ending in desquamation. Arsenic is a remedy of very frequent use by the general practitioner in the treatment of cutaneous diseases; this drug is at times followed by papular, vesicular, erythematous, or bullous eruptions, by a pigmentation, or a hyperkeratosis of the palms and soles. An eruption of zoster occurring during the administration of arsenic is very likely due to the drug. Arnica, so com-monly used by the laity, is frequently followed by an erythematous or pustular eruption. Chloral, iodine, mercury, copaiba, opium, tar, etc., are at times followed by severe inflammatory conditions of the skin. These effects are always to be borne in mind when treating cutaneous disorders or we may fall into the error of supposing them manifestations of the disease we are treating. A patient with this idiosyncrasy regarding quinine or belladonna and suffering from some cutaneous disease with erythematous manifestations would be improperly treated if these drugs were used. I think that it is not an uncommon occurrence to have syphilities who are suffering from a drug eruption the result of previous medication come to us for treatment.

A continuance of the same line of treatment in these cases would lead to disaster. These un-toward effects of ingested drugs illustrate the intimate relation that exists between the diges-

tive tract and the skin.

Because diseases of the skin appeal so strongly to vision and we are able to see the various changes that the different pathological processes undergo, we are apt to lose sight of the fact that the skin is a two-sided organ, that we are observing the changes that are occurring on one side only, and that the other side is the one that will very often deserve the most attention if we are to manage the disease successfully. tomically, we may study the skin as a separate structure, but when we come to consider its physiology we find that it is most intimately connected with the entire system, and through the medium of its rich vascular and nervous supply it must respond to pathological conditions of in-ternal organs, and, when itself the seat of a pathological process occupying any considerable portion of its surface, it must also affect internal

organs.

Physicians devoting their time to dermatolog ical practice are often asked questions like the following: What shall I do for an eczema of the legs? or, What will cure acne? or, What is the best medicine to use for psoriasis? Such questions are evidences that the inquirer has failed to recognize the fact that the skin has two sides and has confined his investigations to the outside only; or, in other words, he has regarded the process as purely local and the name as always referring to the same condition. Now, there is an eczema and there are other eczemas; there is an acne and there are other acnes; no two cases are alike, nor is a cutaneous affection the same during its whole course. An eczema may be acute, or it may be subacute, or it may be chronic; it is an eczema always, but not the same eczema, and the different varieties require a different medication. Skin diseases are not simply local affections and there are times when, to treat them understandingly, it may be necessary to call in the aid of the thermometer, or the

stethoscope, or a urinary analysis.

It is a little strange that, given an organ in which it is so easy to study pathological conditions, where we have the aid of vision, denied us when studying these same conditions in internal organs, diseases of the skin are so little under-stood. It is an old saying that "familiarity breeds contempt" and I presume that seeing is the familiarity in the case of cutaneous disorders. Many diseases of the skin have their origin in external irritants, during their whole course are purely local in character (this is to be expected on account of the skin occupying a position so exposed to injuries, temperature changes, attacks of parasites, etc.), and are usually speedily cured on removal of the irritant; at other times, however, the simple dermatitis may end in an eczema, requiring in addition to a different local treatment constitutional medication, and the knowing of when this change occurs is the im-

portant factor.

There is no specific medication for diseases of the skin if we except the syphilides, and even syphilitics are at times much benefited by omitting all specific medication and directing the treatment as though the patients were suffering from some disease other than lues. Cutaneous affections should be cured as speedily as possible. We have gotten over the idea that eruptions of the skin must be handled with care for fear of causing them to disappear too rapidly and transferring the process to some internal organ. The quicker we get rid of skin lesions the better, for, as already stated, local irritations long continued may result in disturbance of some internal organ, and eruptions of the skin are local irritants just the same when occurring as a result and in the course of a special disease. Bearing in mind the tissue of the skin and its structure, its diseases are to be treated just the same as those of any other organ with the same pathological condition.

Inflammations of the skin are acute, subacute, or chronic. Redness, heat, swelling, and pain are the same whether occurring in an acute dermatitis or an acute eczema, and it is the condition that calls for treatment; the acute process calls for one medication, the subacute for another, and the chronic for still another, no matter in what disease the conditions may occur, and this is especially true of local therapy. Because the lesions in many cutaneous disorders are very small, though the eruption may have a large distribution, we are apt to lose sight of the fact that it is the process occurring in the individual lesion that we are to comprehend. How does it de-velop? What is its course? How is it resolved? A knowledge of these conditions enables us to direct a therapy which at one stage may be necessary to aid the process, while at another it must

be combated.

Dermatological affections may be divided into three classes:

I. Those that are self-limited, usually running a definite course, attended by mild or severe subjective symptoms, and ending in recovery. Cases in this class are usually acute and require little in the way of treatment other than relief of the distressing symptoms. Active treatment in these cases may do much harm, and it is disease of this class that are so often overtreated.

eases of this class that are so often overtreated.

2. Those that are benign in character but incurable and those that are fatal in spite of all medication; the malignant growths, if operable, will come under the care of the surgeon; if otherwise, our efforts will be directed to the re-

lief of distressing symptoms.

3. All other cutaneous diseases will come under this class, and it is here that we find our opportunity to cure. It is in this division that occur cases calling for active, and thorough medication with a prospect of good results; it is here that occur cases that we are able to control and these cut short the disease, which may last indefinitely if not treated; and it is here, too,

that cases are apt to become inveterate from in-

appropriate treatment.

Naturally enough, wi

Naturally enough, when undertaking the care of a skin disease, the question will arise as to whether it will require internal medication, or whether local treatment will be all that is necessary, or whether a combination of both methods will give best results. From the exposed situation of the skin it is liable to injuries from occupations, from the ravages of parasites, from temperature changes, etc., resulting in a purely local affection, and in these cases removal of the irritant and a local therapy will be all that is required if the patient is up to the normal standard of health; but scabies, ringworm, or a simple dermatitis in children with defective assimilation or elimination may refuse to yield to the ordinary medication until these defects are removed.

In caring for cutaneous diseases of infancy and early childhood, the first inquiries should be regarding the ordinary every-day care of the skin. I am positive that many of the cases of eczema at this time of life are the result of the lack of proper care. A baby ushered into the world from the most bland surroundings is placed in the care of some one to be washed and dressed, a process that usually results in a highly-colored, rosy integument, which is exhibited as an evidence of perfect health, and when later on, and probably as a result of this cleaning process, the skin rebels and becomes diseased, the cause is overlooked and the internal organs are interrogated for the source of irritation. The epidermis of a young child is easily removed, and the rubbing to promote a healthy color deprives the skin of its natural protection. Washing for cleanliness is essential to the health of the skin, but anything beyond that is harmful. The skin of an infant, or young child must be treated with profound respect. In children a little beyond the age of infancy overeating is a fruitful source of cutaneous diseases; often this overfeeding is not attended with symptoms that call attention to the gastric apparatus, but in all the skin affections of early childhood the amount and kind of food that the patient is taking must be looked after and regulated by the medical at-tendant, and he should also specify the hours of feeding. Attention to the regulation of diet and hygiene will often overcome a disease that has resisted a thorough course of medication, both internal and external.

If attention to diet and hygiene be necessary in children, it is equally necessary in adults. It is a matter of surprise in questioning patients to find the amount and kind of stuff the average individual puts into the stomach daily. Young women will tell of eating a pound of candy every day and exhibit surprise when told that it must be stopped; add to this several glasses of soda water, and late suppers, etc., and it is little wonder that a skin disease results, even if there be no gastric symptoms severe enough to attract attention. Sweets are bad for some cutaneous affections, and hot soups and late suppers are

worse. A correction of habits is necessary if we are to treat successfully skin diseases. A matter that impresses me more each day is that it is necessary that we see our patients often. Pathological processes of the skin change their character often and a therapy for to-day may be improper to-morrow. It is hard to convince patients that they are sick when they are able to attend to their ordinary vocations, but better results will

follow if we are able to do it.

An increasing experience in the treatment of cutaneous diseases leads me to the conclusion that among a large proportion of general practitioners the opinion prevails that there is a specific medication for skin diseases, for I find that generally the cases that are referred to me have been treated by arsenic, mercury, or iodide of potash. All these are valuable drugs in properly-selected cases, but capable of doing immense harm when used indiscriminately. It would be far better to leave them entirely alone until all other resources have been exhausted. A correct diagnosis is essential in treating skin diseases. I am positive that mercury and the iodides are often given when an incorrect diagnosis has been made simply from the skin lesion, which in a number of diseases may look like a syphilide.

Regarding general treatment I have little to say. The practitioner is familiar with all conditions of ill health and perfectly competent to direct a therapy for their removal. I want to call attention to a few of the drugs that are in such common use in the treatment of cutaneous diseases. If reliable statistics could be obtained of cutaneous diseases treated by arsenic alone, and benefited, or cured, and of those in which its use had been followed by no benefit or untoward effects, we would find that the latter would far outnumber the former. I am positive that more harm than good follows the use of arsenic in skin diseases. There are only a few cutaneous disorders in which the drug may be used with a fair prospect of doing good, and even in these not all the conditions are suitable for its administration. It had better not be used at all than used indiscriminately. The action of arsenic seems to be upon the epidermal structures; whether by its influence upon the nervous system or as a direct irritant is a question, but from the known benefit that follows its use in neurotic cases of eczema, pemphigus, etc., I am inclined to the opinion that the former is the correct theory. Arsenic is never to be given when there is an acute inflammation of the skin. In chronic affections characterized by epidermal exfoliation it finds its sphere of usefulness. In psoriasis, squamous eczema, lichen planus, pemphigus, it may be used with a reasonable expectation of benefit resulting, but even in these diseases it is better to try other remedies first, and then, if arsenic is decided upon, it must be used thoroughly, as the action of the drug is slow and it should be given for a long time in order to accomplish a cure. Failures from its use may often be attributed to an impure preparation, a fact that should be remembered.

The alkalies are an exceedingly valuable class of remedies in cutaneous disorders and are indicated whenever there is a congestion of active character. In acute eczema, in the acute stage of psoriasis, in the various erythemata, and in skin diseases occurring in gouty or rheumatic individuals, this class of remedies will be found of great value.

Antimony deserves more consideration as a remedy in cutaneous disorders than it is getting. I know of no remedy that gives as good results in the dermatoses occurring in the robust individual with the florid complexion, the hearty eater, whose diet is largely meat, as antimony. It relieves the congested skin and assists in eliminating the waste products through the alimentary canal and kidneys. Try antimony instead of arsenic.

Mercury, of course, finds its greatest value in the syphilides, but it is also very useful in those affections that are characterized by induration of the tissues, such as we find in old cases of eczema. A short course of mercury will act very kindly in causing absorption of the exudate. In small doses in the eczemas of children, and especially those that are pustular in character, in an active psoriasis, particularly if occurring in those of full habit and florid complexion, in the cutaneous disorders of the gouty and wherever there is defective elimination, in the various erythemata, in rosacea, etc., it is of great value. The salicylates find a sphere of action in cu-

The salicylates find a sphere of action in cutaneous disorders that are characterized by congestions and in those of a rheumatic or gouty character. In those cases of urticaria that are not dependent upon some disturbance of the digestive apparatus it seems almost a specific. Ichthyol, one of the newer remedies, is of value in the various vasomotor disturbances and in cases of acne occurring in the plethoric, also in urticaria and in rosacea.

Calcium sulphide in some cases seems to interfere with pus formation, while in others it seems to hasten the process in pustular lesions that are slow in resolving, and is useful in many of the acnes, furunculosis, etc. I have had better results from small doses often repeated than from the large doses. It is necessary that the drug be pure and it should be given in gelatin-

coated pill.

The iodides are useful in assisting the elimination of waste products, such as are found in old cases of psoriasis, in indurated acne, etc. They are also valuable in cases of furunculosis, when there are many lesions and distributed pretty well over the body, in the slow-developing lesions of tuberculosis of the skin that used to be known as evidences of scrofula. Its action in the later manifestations of syphilis need only to be mentioned. Untoward effects sometimes follow its use and they must be watched for and avoided. The roborants, such as cod-liver oil, the various preparations of malt, etc., will occur

The newer preparations in the management of cutaneous disorders are most of them being used tentatively; we are not positive that they are better than the drugs that we are perfectly familiar with, and they had better be avoided until their usefulness has been positively demonstrated. With the careful use of the drugs that I have mentioned most of the cases of skin disease that come under the care of the general practitioner can be successfully managed in so far as internal medication may be necessary.

far as internal medication may be necessary.

In the field of local therapy in skin diseases lies the opportunity of brilliant cures, or miserable failures, depending upon whether we are or are not familiar with (1) the pathological condition existing and the efforts that Nature is making to overcome this, and (2) an accurate knowledge of the effects of medicines when applied to healthy or to diseased skin. A knowledge of these two requisites enables us to select a remedy that will combat the pathological process and at the same time aid Nature in her efforts at repair.

Time will not permit me to call attention to the various local applications that are found useful in the management of skin diseases; I will simply make a few suggestions concerning the principles of local therapy.

I. The removal of all sources of irritation to the skin. Inquiries may show that the occupation of the patient, the methods and material used for the purpose of keeping the skin clean, or the clothing that is worn may be the means of lighting up a skin affection, or of continuing it when occurring from some other cause.

occurring from some other cause.

2. Absolute cleanliness. This means rendering the skin aseptic. The removal of all disease products from skin lesions lessens the liability to secondary germ infection, while their decomposition furnishes an added irritant. A process of cleaning should be accomplished with the blandest of material, and the utmost gentleness to avoid irritation.

3. The relief of distressing subjective symptoms of pruritus, smarting, or pain. An infant suffering from an eczema will do more harm in a minute by its efforts to relieve the itching by scratching than we may be able to overcome by a week of appropriate treatment.

4. The selection of the proper vehicle for the incorporation of the drug we are to use and a proper preparation of the application. Ointments and powders require the exercise of brain and muscle, if they are properly prepared, and a limited experience with pharmacists will convince any one that there is a great difference among them regarding the way in which these applications should be prepared. Success or failure in local treatment will largely depend upon properly-compounded applications, and the writing of a prescription does not end our duty to the patient.

5. The proper application of the remedy. A fact that should always be remembered is that the intermittent application of even soothing remedies will have an irritant action upon the lesions, and hence the ordering of an ointment of

oxide of zinc for an eczema, in which it is indicated to be applied morning and night, would be improper, for, if the remedy is indicated, the application must be in constant apposition to the part as long as the indication lasts. I think that this is a matter of much importance.

With attention to the few suggestions made, the general practitioner is just as competent to manage cutaneous affections as the specialist, barring, of course, the greater experience the latter has from his larger clientèle.

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MEDICAL PROGRESS.

THERAPEUTICS.

Treatment of Hemorrhoids by Electricity.—The advantages of treatment in these affections by electrical currents of high frequency and tension are set forth by R. Pisani (Annali di Elet. Med. e Ter. Fis., Feb., 1902). After reviewing the experiences of other clinicians, the author gives the details of a case so treated in his personal practice, the favorable results coinciding with the apparently invariable success reported from the use of this method. The electrical current was applied daily to the diseased site for from five to eight minutes, the intensity of the current being from two to four amperes. The patient experienced no discomfort from the passage of the current, a sensation of slight warmth at the anal orifice being the only noticeable effect. Abolition of spasm of the sphincter was obtained in a few days, permitting the easy passage of the electrode; sphincteralgia diminished markedly after the first applications and disappeared entirely at the end of ten days; internal and external hemorrhoids, which were numerous and voluminous, gradually became less painful, and they, too, were entirely oblicerated after ten treatments. The patient's general health improved steadily during the local treatment, and there has been no recurrence of trouble during the five months he has been under observation.

five months he has been under observation.

Atropine in the Treatment of Ileus.—It has been observed when pursuing this method of combating certain forms of intestinal obstruction that small and continued doses given for several days almost invariably produced toxic symptoms, whereas the majority of patients who had given large doses rarely showed any such effects. An explanation of this phenomenon is proposed by A. Wener (Deut. med. Woch., Feb. 6, 1902). Atropine is known to be antagonistic to mortus in the state of the st phine and, as almost all cases of ileus are treated in the early stages with opiates, the small hypodermic doses of atropine are readily neutralized and have no effect on the intestinal spasm. A larger dose (0.005 gm.) does not call forth toxic symptoms, as only the art which is not neutralized comes into effective action. The author believes that a knowledge of this antago nism affords also a means of controlling the effects of atropine administration. He finds from the experience of his own and other cases that atropine can be used in all forms of ileus, as even in the surgical cases the drug lessens the pain and induces bowel movements after the operation. The intestinal obstruction following laparotomy or herniotomy, unless due to volvulus or incarceration, should be treated with atropine in preference to opium. The fecal accumulations in large scrotal herniz of old people are often relieved. As for the dose, if the patient be under the influence of opiates, a hypodermic of 0.005 gram (*/w gr.) can be given and repeated in twelve hours. If very little or no opium

eve been given in twenty-four hours, only 0.002 grams (/m gr.) should be injected, followed in twelve hours if necessary by the larger dose. If no gas be passed in twenty-four hours after the first administration, lapa-

y is indicated.

Frost-Bite and Peroxid of Hydrogen.—Chilblains are a common and troublesome affection the world over, and the many methods of treatment prove that sem. Méd., 1902, No. 5) has been using peroxid of hydrogen in treating this condition whether with or without ulcers. He immerses the affected parts for half an hour every day. For small children he employs the pure product reduced to two or three times its volume by the addition of warm boiled water. For children over three years of age and for adults he uses a half-strength solution. If there be ulcers this author adds to the peroxid of hydrogen a saturated solution of horate of soda in order to decrease the acidity of the liquid and the amount of pain which it produces. He states that the results he obtains are prompt and satis-

Treatment of Lobar Pneumonia.—The discovery of the specific cause of pneumonia aroused hopes that in the near future a specific cure might be found. The serum treatment has been advocated by many as fulfilling this indication, but experience has shown that it has little if any effect. Pneumonia, perhaps more than any other disease, must be treated according to the particular symptoms which arise, says C. E. NAMMACK (N. Y. Med. Jour., Feb. 15, 1902), and hence the physician must be able to study and appreciate the individual case. So far as drugs are concerned he pins his faith in nearly all cases upon four: Strychnine, whisky, nitroglycerin and oxygen. The strychnine and nitroglycerin are given in moderate and frequently-repeated doses combined with a dram of the wine of pepsin. Whisky is well borne and can usually be given in large doses. It has the disadvantage of causing relaxation of the peripheral vessels, but this action can be overcome by the use of strychnine. The benefit from oxygen ay be problematical, but it certainly gives the patient relief and frequently renewed courage. Creosote has been highly extolled by some observers and, although undoubtedly of value in many cases, its specific action is doubted. The rectal and subcutaneous injections of a saline solution are more rational and are especially in-dicated when the kidneys and bowels are deficient in action. Before the subcutaneous or intravenous injection of fluids, a preliminary venesection should always be done to avoid any considerable increase in the body fluids. A temperature below 104° F. seldom needs any treatment, but above that point cold or tepid baths act well as antipyretics and as cardiac stimulants by increasg the tone of the peripheral vessels. The chief cause of death is degeneration of the myocardium, due to nia and the amount of lung involved.

Practical Pharmacy.—The lack of instruction in pharmacy not only hampers the physician in the art of prescribing, but frequently leads him into making miswhich may seriously change the action of the gr. E. T. HARGRAVE (N. Y. Med. Jour., Feb. 22, 1902) has suggested several rather frequent combinas which the pharmacist is called upon to make and in which the desired results cannot be obtained. Quie is sometimes made soluble for administration by the addition of dilute sulphuric acid and then glycyra is added to disguise the taste. Unfortunately, the et principle of licorice is precipitated by an acid and the mixture is made much more bitter. An excel-ent way of administering chloral is by adding syrup secine U. S. P., 5ss., and tinct. cardamom. comp., M. x., each dose. An emulsion of turpentine for internal

use may be made as follows: Place the finely-powdered acacia in a perfectly dry bottle in the proportion of twenty grains to the ounce of oil; add the entire quantity of oil and shake vigorously. Then add half an ounce of water and shake till globules of oil case to

an ounce of water and shake till globules of oil cease to be seen on the sides of the bottle. Add gradually the remaining water, shaking well after each addition.

Treatment of Erysipelas.—The results following the application of an old remedy, continuous warmth, to erysipelatous areas have been found excellent by M. JERUSALEM (Klin. therap. Woch., Feb. 16, 1902). The infiltration and reddening begin to disappear in from one to three days, and, though the temperature may persist, the pain is relieved rapidly. Abscesses are said to complicate erysipelas of the extremities in 64 per cent. of the cases: however, not one single instance per cent. of the cases; however, not one single instance was observed in 25 cases treated with heat. The best way to apply this heat is by means of a thermophor. The author's experience with antistreptococcic serum

has been very disappointing.

Therapy of Auto-intoxication.—Intestinal lavage has during the last few years been strongly urged, especially by Boas, as only second in importance to purgation in the treatment of this condition. Many observers even affirm that no permanent value can be obtained by the administration of antiseptic drugs alone. While recognizing the benefits to be derived from colon irrigations, B. ROMINSON (Med. Rec., Feb. 15, 1902) believes that too little attention is paid to certain intestinal antiseptics which assist in preventing fermentative changes and still are not strong enough to de-range the normal digestive functions. The argument which has been used against such drugs has been that whatever inhibitory action may be exercised by them over the development of certain bacteria, this inhibition is exercised even more strongly over the healthful ac-tion of the viscera affected. Three drugs have proven very satisfactory in the hands of the author in meeting the indications in such cases; first, creosote in small doses combined with the elixir of pepsin; second, wood charcoal; and third, the subnitrate of bismuth. In certain cases, dilute phosphoric acid has proven more valuable, especially when the nerve tone is lowered. The able, especially when the nerve tone is lowered. The electric baths, abdominal massage and static electricity are useful in many cases, especially when combined with purgation and intestinal lavage. The malnutrition which results in such patients leads frequently to gastroptosis, enteroptosis, displaced liver, kidneys, etc., which often come under the surgeon's knife. The author suggests that if these cases could be followed for a few years, the percentage of cures after operation

would be extremely small and he, therefore, seldom recommends surgical interference.

Treatment of Eclampsia by the Method of Stroganoff.—Stroganoffs method of treatment is designed to accomplish the following results: (1) Prevention of the convulsions by lessening the irritability of the nervous system and by removing all external sources of irritation, especially those connected with the birth canal. (2) Strengthening of the vital processes by careful supervision of the cardiac and pulmonary circulations, by securing as large a quantity of oxygen as possible, and by prompt delivery, if, with these measures and a proper diet, the convulsions do not cease. The treatment is in brief as follows: The administration of oxygen during the convulsions; the use of morphine and chloral to control the convulsions; the free use of cardiac stimulants when the weakens; a milk diet; avoidance of all methods of treatment which tend to depress the patient. The use of normal salt solution is advised as the most satisfactory method of stimulation, although brandy and sul-phuric ether may be used for sudden emergencies.

Stroganoff believes that the single dose of morphine should never exceed ½ grain. He believes that the ordinary use of hot-water baths and of hot air depresses the already overburdened heart and increases still further the nervous irritability and thus favors the recurrence of the convulsions. A warm bath to cleanse the skin has no harmful effects and is soothing. Within the last few months nine cases of eclampsia have been treated in Boston hospitals in accordance with the principles of Stroganoff, and in the main, according to F. S. Newell (Boston Med. & Surg. Jour., Feb. 20, 1902) the results proved satisfactory, postpartum cases in particular yielding readily to the sedative treatment. In the remarkable series of cases reported by Stroganoff, 58 were cases which came under his own observation and the hitherto unheard of result of no mortality was obtained.

Treatment of Tetanus by Baccelli's Method.-The question of rheumatism and other etiological factors in the induction of tetanus in which infection cannot be traced to an external wound is discussed by E. Cloff (La Riforma Medica, Jan. 20, 21, and 22, 1902). The author believes that rheumatic tetanus cannot be considered a separate pathological entity, but that all cases of tetanus are due to infection with the bacilli of Nicolaier, and that exposure to cold, dampness, etc., but is a predisposing cause. In individuals in whom no external wound is visible, infection is to be at-tributed to the presence of the specific bacilli in the mouth, nose, bronchi or intestines. Statistics of treatment by tetanus antitoxin are quoted, showing a mortality of from 50 to 80 per cent.; contrasted to this, Baccelli's method of treatment by hypodermic injection of carbolic acid has given brilliant results, the mortality being estimated at from 12 to 30 per cent. The dose should never be less than one centigram to the kilogram of body weight; 3 grams have been administered daily without ill-effect.

PHYSIOLOGY.

Relation of Lipase to Fat Metabolism.-Not until clear ideas on the subjects of fat absorption and fat metabolism are obtained will one be able to make any definite progress in the study of the pathological problems connected with fatty degeneration and fat accumulation in the body. Substantial contributions are being made in this field. A. S. LOEVENHART (Amer. Jour. of Physiology, Feb. 1, 1902), prompted by the recent demonstration of the reversible action of lipase, ordinarily known as the fat-splitting ferment of the pancreas, which reversible action is shown in its ability to break up as well as to form fats, according to circumstances, has conducted a research in order to throw light on the history of fat in the organism. Although under certain circumstances, lipase may act as a lipolytic or fat-splitting ferment, and under other circumstances as a lipogenetic or fat-forming ferment, in either case its action is incomplete. In the intestine it splits fats into fatty acids and glycerin. These are absorbed by the epithelial cells in which these occur, as the result of the farther action of lipase, a partial synthesis of these elements, with the formation of fat. This synthesis is due to the effort on the part of the lipase to establish equilibrium between the fatty acids and the glycerin. But the latter is being constantly diffused from the attached border of the cells. The fat remaining in the cells would be immediately broken up by the lipase unless there were an immediate absorption of fatty acids and glycerin from the lumen of the intestine. Evidently the importance of the fat in the cells is not great, for none of it passes as such into the lacteals. In the thoracic duct the fatty acids and glycerin are found largely synthesized. Munk believes that this synthesis

occurs in the lymphatic glands. To determine to wh extent this is true, Loevenhart studied the action of extract of the lymphatic glands and lymph, and found that they have considerable lypolytic effect. This result This res simply demonstrated the presence of lipase in the lymphatic glands and lymph, without showing any synthetic power possessed by the same. To throw To throw light on this subject, Loevenhart studied other tissues and found lipase present not only in the pancreas and lymph-glands and lymph, but also in the kidney, to a large extent in the liver, in the submaxillary gland, in the intestinal and gastric mucosa, the mammary gland, blood, brain, spleen, somatic and heart muscle, and to a considerable extent in adipose tissue. Its presence in abundance in the last is accounted for by the fact that during inanition the body can absorb its own fat, the lipase in the adipose tissue splitting it up in order to allow it to be "translocated" to the blood for instant consumption. This universal presence of lipase in the tissues seems therefore to be connected with the synthesis of fat, for its quantity varies according to the amount of fat found in the individual tissues. Lipogenesis is analogous to glycogenesis. The adipose tissue bears the same relation to the storing up of fat as the liver does to the storing up of glycogen. Although the liver contains more lipase than any other tissue, it normally contains very little fat, the normal structure of the liver being unfavorable to fat accumulation. Under pathological conditions, however, fat is stored up with ease and rapidity. The fatty degeneration incident to phosphorus-poisoning is not due to lipase, for the latter is not found in excess in cases of this condition experimentally induced.

Sensitiveness of the Skin to Heat.—In a contribution to the "Knowledge of the Topography of Heart Areas," E. Vress (Pflüger's Archiv, Jan. 22, 1902) gives some valuable information. He divided the entire cutaneous surface into small quadrilateral areas, and by means of the thermesthesiometer he determined the degree of heat that in each area arouses the sensation of heat and the degree that arouses the sensation of pain. He tabulates these results and gives figures representing by means of shaded areas the varying sensibility of the skin. The sources of error in such an inquiry are to be attributed to the effects of adaptation, presence or absence of moisture, after-sensibility, hyperemia, fluctuations in the zero-point, and the pres ence and character of accompanying sensations. He finds that the left side of the body is more sensitive to heat than the right, the median surface of the trunk less than the lateral, and the lower limbs more than the trunk. In the last the sensibility to heat diminishes toward the distal parts, but not by regular stage. In fact some distal points on the extremities are more sensitive to heat than certain proximal points. The lateral surfaces of the extremities are less sensitive than the median. To what are these variations in sensibility due? Keeping in mind the causes of error mentioned, they are due to either the variations of innervation, the varying quality of the skin, or possibly both. degree to which a portion of the skin is normally accustomed to high temperatures has a marked effect in diminishing its sensitiveness to heat. Thinness of the skin is, as a rule, associated with greater sensi-bility. The effects of habituation are supposed to cause some transformation in the structure of the sk Veress found the lumbar region to be the most sensitive region and the soles of the feet to be the least sensitive; next the postauricular region of the scalp, and next the palmar surface of the fingers. Eliminating the soles of the feet on account of the effect of callosities in diminishing sensibility, Veress concludes that the portion of the body least sensitive to heat is the

postauricular region of the scalp. It is impossible to determine the purely ideal sensibility of the skin to heat from the standpoint of innervation, for it is impossible wholly to eliminate the effects of the condition of the epidermis and the effects of habituation and practice.

Subcutaneous Alimentation and Formation of Bile.—To determine the value of subcutaneous ali-mentation A. G. Barbèra (Bull. delle Scienze Med., 1902, Series viii, vol. I.) conducted a series of experiments upon a dog, the substances injected being somatose, glucose, olive oil, and distilled water, the elimination of bile and excretion of urea being noted in each case. There was no increase in any of these substances after injection of distilled water, 100 c.c., glucose, 10-percent. solution sterilized olive oil in moderate quantity, or somatose, 5-to-7-per cent. solution; neither was there local reaction. Elimination of bile and excretion of urea were increased after injection of glucose, 20per-cent. solution, non-sterilized olive oil in large quantity, and somatose, 10-per-cent. solution; these injections gave rise to some local reaction. It is believed that the increase in excretion of urea, etc., in the latter series of experiments was due not to absorption of the substances injected, but rather to reactive processes induced by them through nonsterilization, concentration or excessive amount, causing destruction of the proteids of the body in more than the usual quantity, and the products of their de-composition passing through the liver, where they are chiefly converted into urea, effected an increase in the functions of that organ and increased production of bile. The hypotheses advanced in a previous paper are reiterated, the results of these experiments being considered as confirmatory to a degree of the principles they embraced, i. e., that the increase in the quantity of bile after meals is due to the presence in the liver, and not in the intestines, of nutritive principles derived from the alimentary canal; and the production of bile is determined by the presence in the liver of certain substances derived directly from the organism itself, as is seen in intra-uterine life, in inanition and during the period of lethargy in hibernating animals, the production of bile being proportionate to the quantity of such substances and nutritive principles found in the liver. The author deduces from the experiments cited, that subcutaneous injections of nutritive substances are much less valuable than is their administration by rec-

NEUROLOGY AND PSYCHIATRY.

Intracranial Tumor.—The diagnosis of such a condition in a man of thirty-seven years was made by J. STEWART (Montreal Med. Jour., Jan., 1902) because of constant severe headache, vertigo, bilateral optic neuritis, exaggerated knee-jerks and ankle-clonus. It was localized on the left side at the lower part of the ascending frontal convolution, because of spasms and weakness of the muscles of the lower part of the right side of the face, paresis of right side of tongue, and slight paresis and disturbed sensations in the right arm and hand. It was thought to be subcortical, because of absence of general aphasia and the presence of progressive dysarthria. It was near the cortex, because of he muscular spasms and because a unilateral lesion to aduce dysarthria must be sufficiently near the cortex to include not only the speech tracts which pass down the e side, but also those that cross over in the corpus callosum and pass down the opposite side of the brain.

Antisyphilitic treatment proved ineffective, and the od nutrition of the patient and absence of tuberculosis elsewhere made tuberculosis improbable, so a glioma was suspected and an operation was performed. The tumor was found to be an encapsuled, firm, whitish glioma, measuring one inch by one-half to threequarters, and was removed. The patient's articulation after operation became somewhat worse, but on the eighth day began to improve, so that at about the third week he was able to articulate words of two or more syllables. At the end of four weeks, speaking slowly, his articulation was nearly normal. The paralysis disappeared and the patient was discharged cured. Pelvic Lesions and Mental Disturbances.—Among

lunatics there are more single than married men and more married than single women, writes A. THORAS (Amer. Jour. Obstetrics, Feb., 1902), and this may be accounted for because single men lead more irregular lives than do married men, so favoring subsequent mental collapse, and married women, owing to injury and disease entailed by maternity, are more subject to mental degeneration than are those who are free from pelvic troubles. At the Asylum for the Insane, London, a pelvic examination in one thousand females dis-closed disease or abnormality in 25 per cent. Medical treatment was found difficult to carry out and non-productive of result, so operation became the routine practice. The lesions were tabulated under six headings, viz.: Ovarian disease, abnormal displaced uteri, tu-mors, cervical lesions, diseases of the uterine body and endometrium, and injuries to the perineal body. Eightyfour cases of acute mania were operated upon with mental recovery in fifty-one; one hundred and five cases of chronic mania with recovery in nineteen; five cases of epileptic mania without any recoveries; fifteen cases of puerperal mania, with recovery in seven; four cases of folie circulaire with one recovery; one case of psychocoma with recovery; twenty-five cases of acute melancholia with recovery in thirteen; thirteen cases of chronic melancholis with recovery in six; two cases of puerperal mania with recovery. Some of the cases that failed of cure showed more or less improvement in the mental condition. The mental results of operations for hernia in 39 patients of both sexes were almost nil.

Treatment of Paralytic Attacks.-As a guide for the treatment, the paramount fact must be advanced that the patient generally succumbs to the effects and complications which finally occur, and it is against these that therapeutic or rather prophylactic measures must be directed. A. Pick (Phil. Med. Jour., Feb. 8, 1902) believes that the interruption of the attack should be considered first, as it is often influenced by the irri-tation of a filled bladder or rectum or often of an unobserved furuncle, and finally, especially in children, by some slight febrile affection. He does not believe in any specific against the attack itself and considers unfavorably the injections of ergotin often recommended. In addition to the local measures directed against decubitus, careful attention must be given to the disinfection of the accessible parts of the alimentary canal. The proper cleansing of mouth and nose may obviate pneumonia and high enemata of water or boric-acid solution will prevent auto-intoxication from the intestine, which has often been held responsible for the attacks themselves. To overcome the danger of deglutition pneumonia the nourishment should be liquid, but the power of swallowing should first be tested. When this act is interfered with, rectal alimentation is preferable to the use of the pharyngeal sound. The en-emata should be small and bland. To combat the increased elimination of water during the first few days,

simple saline enemata should be given every hour.

The X-ray in the Diagnosis of Lesions of the Brain.—The second case on record in which a brain tumor was localized during life by means of the X-ray is reported by C. K. MILLS and G. E. PPAHLER (Phil. Med. Jour., Feb. 8, 1902). A clinical diagnosis was

made from the general symptoms and from the combination of motor paralysis with impairment of cutaneous sensation, astereognosis and hemianopsia, of a dense tumor of large size in the parietal region, chiefly subcortical, possibly invading the motor region and extending to or compressing the posterior limb of the internal capsule and the optic radiations near the basal The negative obtained by the X-ray showed a large shadow lying between the coronal suture and the posterior meningeal artery. Experiments made on cadavers, with hardened tumors placed in artificial cavities of normal brains, likewise showed appropriate shadows. The authors conclude from other experi-ments that in addition to the detection of tumors proper, other abnormalities and deficiencies in brain substance can also be detected, which will probably be of value in the diagnosis of cysts, softening and hemorrhages. It is necessary, however, to exercise great care in differentiating the abnormal shadows from those obtained from normal parts of the brain.

Cerebral Bulbar Palsy.-Paralysis of the tongue from disease of a single cerebral hemisphere, though always associated with hemiplegia, is not at all uncommon, but still is difficult to explain, as the tongue is an organ the movements of which are made symmetrically, and which has, as would be expected, a bilateral representation in the cortex. An interesting case of bulbar paralysis is reported by C. L. Dana (Phil. Med. Jour., Feb. 8, 1902) in a man sixty-seven years of age, who was admitted to the hospital with the history of an attack of left-sided hemiplegia. The incomplete paralysis of the left arm, leg, and lower side of the face was accompanied by a distinct and complete paralysis of the tongue and by a partial paralysis of the lips. The pa-tient died three weeks after the attack, the hemiplegia having improved, but no change having been noted in the condition of the tongue and lip palsy. Autopsy showed a focus of hemorrhagic encephalitis involving the cortical and subcortical tissue in the lower and posterior end of the posterior central and the adjacent inferior parietal lobule. From a study of his own and other reported cases, the author concludes that the tongue and lip centers are probably more or less identical. One group of centers for the tongue is in relation with the articulatory movements of the lips and another with the movements of mastication. Paralysis of the tongue and to some extent of the lips from a one-sided cortical lesion occurs and may perhaps be explained by the fact that in many individuals the brain becomes accustomed to using only one center in controlling the movements of these parts, causing a paralysis of these when the center is destroyed. When the center on the other side becomes awakened to its capacity, it takes up these movements and the paralysis disappears. This theory may explain also the frequent difficulty in deglutition and articulation, in many cases of hemiplegia due to ordinary cerebral hemorrhage. That a permanent bulbar palsy can be caused by a cortical lesion of one hemisphere is doubtful and if it occur it must be regarded as an anomaly.

MEDICINE.

Acute Syphilitic Nephritis with Extreme Albuminuria.—Although Karvonen collected a series of cases of true acute syphilitic nephritis, the possibility of this condition is not generally recognized. The most skeptical critic, writes E. Hoffman (Berl. klin. Woch., Feb. 10, 1902), must admit that in a certain number of cases acute nephritis has occurred during the early stages of syphilis in previously healthy individuals, and that such nephritis has been cured by mercury. It is not easy to see why syphilis, which from the eruptive period, is a constitutional disease capable of affect-

ing any or all the bodily organs, may not affect the kidneys in the same manner as any other infectious ailment. Hoffmann reports a case of acute syphilitie nephritis occurring in a man of twenty-three, who, however, gave a history of having had scarlet fever when five years of age. Following an infection occurring in June, the patient had an eruption early in Au-gust. A few days later the patient noticed that his urine was darker than the normal color and of diminished quantity. Urinalysis early in September showed, according to Esbach's method, 7 per mil. of albumin after dilution of the urine with nine parts of water—i.e., the equivalent of 7 per cent. of albumin. Hyaline casts were present. Salkowski was asked to make a careful quantitative analysis of the urine, and found in two examinations 8.5 and 7 per cent. respectively of albumin by weight. Under treatment with mercurial inunctions the albumin and casts gradually disappeared, together with the ordinary syphilitic manifestations. Justus demands, for the proof of the syphilitic origin of albuminuria, evidence on three points: (1) Healthy kidneys before the beginning of the specific disease; (2) the occurrence of albuminuria must go hand in hand with other manifestations of syphilis, and (3) the albuminuria must respond in an unmistakable way, either by marked improvement or by cure, to treatment by mercury. The last two conditions are thoroughly established in Hoffmann's case, and a careful analysis of the history of the case makes it appear probable that the first condition also existed.

Is There a Fourth Disease?-About a year ago Dr. Dukes declared that he had found a disease which resembled scarlet fever, measles and rubella, but which could be distinguished from them all and hence was known as "the fourth disease." In an attempt to confirm this opinion, C. B. KER (Practitioner, Feb., 1902) has been watching for cases illustrative of the new disease, but as yet has been unable to satisfy himself of its existence, although his experience is very wide. A number of very valuable hints are given in the course of this article relative to the differential diagnosis of these eruptive diseases. Scarlet fever usually has a very short period of incubation, from three to five days, while measles takes from ten to thirteen days to develop. Scarlatina has an abrupt invasion associated with marked symptoms, a rapid rise of temperature accompanied by headache, vomiting and sore throat, the rash appearing usually within thirty-six hours. Measles has a more insidious invasion, lasting four days as a rule. The symptoms are those of catarrh, sneezing, coryza, running at the eyes, photophobia, and cough. There is no sore throat or vomiting, but a well-marked stomatitis. Koplik spots may usually be seen if the throat be examined in bright daylight. With the eruption the characteristic signs appear. In scarlet fever the bright scarlet, finely-punctate rash is first seen on the sides of the neck and the upper part of the chest. The face is flushed, but the rash as a rule avoids it, merely appearing at the angles of the jaw. The circumoral region stands out, unaffected by flush or rash, as a distinct white ring round the mouth. The conjunctive remain clear. In measles the rash covers the whole face, beginning from the roots of the hair and behind the ears. The eyes are suffused and the circumoral region is affected. The rash is composed of raised, velvety papules, coalescing into irregularly-shaped macules, varying in color and being less bright than scarlet fever. Scarlatina presents a bright red appearance of the fauces with perhaps some swelling of the tonsils and a strawberry appearance of the tongue. In measles sore throat is seldom complained of, but the mouth is usually congested and dirty and no strawberry appearance of the tongue is present. Scarlet fever temperature falls by lysis, that of measles by crisis. There is a branny desquamation in measles, but it can in no way be confused with the characteristic worm-eaten appearance of the peeling in scarlet fever. In rubella the incubation is from ten to twenty-one days and seldom are there any symptoms of invasion. Occasionally a slight sore throat or coryza may precede the eruption. The eruption consists of small discrete spots, larger than the punctate spots of scarlet fever spots, larger than the papules of measles. They appear first on the face and the circumoral region is always implicated. The spots spread rapidly over the body and the case then looks more like scarlet fever, especially when the rash has disappeared from the face. The temperature is often absolutely normal. There is usually a slight sore throat and the patient may sneeze a few times. Sneezing is very rare in scarlet fever. The fourth disease as described by Dukes lies between scarlet fever and rubella. The rash covers the whole body in a few hours and is brighter than that of scarlet fever. The throat is swollen and the conjunctive are pink. The glands are enlarged as in rubella, the desquamation may be slight or profuse. The tongue is clean or only slightly furred. It affords no protection against scarlatina or rubella. Since a second attack of scarlatina or measles is possible and since the few cases reported might easily have been mild cases of scarlet fever, it seems unnecessary as yet

mind cases of scarlet reter, it is a fourth disease.

Masked Malarial Fevers.—Few physicians have yet learned to appreciate what a variety of obscure symptoms may be present in cases of chronic malarial poisoning. Since the return of our soldiers from Cuba and the Philippines, numerous cases have arisen in all and the Phinppines, humerous cases minimum of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of this persons of the country and the recognition of the recognit culiar infection is extremely important. In an analysis of 195 cases of latent and masked malarial fever in which the diagnosis was not made, C. F. Caarg (Med. Rec., Feb. 15, 1902) shows how easy not matter it is to make mistakes unless a thorough examination of the blood is made. the blood is made. Symptoms referable to the intestinal tract were most frequently present, the diagnosis of chronic dysentery being made in fifty-five cases. Although the cases showed irregular slight rises in temperature, malaria could not have been diagnosed from the symptoms. Quinine was of marked benefit in all those instances in which the parasites were demonstrated. Pulmonary tuberculosis was another diagnosis frequently made. These cases showed a quotidian rise of temperature and were accompanied by cough, great emaciation, profuse sweats, and presented a picture of pulmonary tuberculosis. Various other diagnoses were made, many of them being correct, but the course of the diseases was modified by a concomitant latent malarial poisoning and could be greatly improved by the elimination of this factor. It is therefore advisable in any obscure or chronic disease, especially when originating in the tropics, that a thorough blood-examination be made. Most of the cases are due to the estivo-autumnal parasite and the knowledge of its presence is especially important for it is this form of the disease

which may at any time become pernicious.

Stokes-Adams Disease.—The various symptoms accompanying a permanently slow pulse without heart lesion, which are grouped in the rare condition known as Stokes-Adams disease, are enumerated by L. Azorz (La Sem. Med. d. Buenos Aires, Year VIII., No. 45), as observed in a recent personal experience and as reported by other clinicians. The characteristic triad of symptoms are stated to be as follows: Bradycardia, epileptiform and syncopal attacks, the first being the invariable element. Other manifestations are increased arterial tension, absence of valvular lesions with ac-

centuation of the diastolic sound in the aortic interspace coexistent with arteriosclerosis (which latter is thought to play an important part in the pathogenesis of the disease), vertigo, albuminuria, decreased ures, unequal dilatation of the pupils. By many observers insufficient blood-supply to the bulb is thought to be an etiological factor in the condition; this bulbar anemia, in the author's opinion, is probably due to arteriosclerosis.

Hemoglobinuria in Malaria.—It has been a disputed question whether the hemoglobinuria, which is sometimes observed during the course of a malaria, is due to the quinine which has been given or whether it is a modification of the malarial infection. It is also believed that this condition is associated with malaria developed in the tropics and is influenced by alcoholism or other predisposing causes. In contradistinction to this is an interesting case reported by M. Orro (Deut. med. Woch., Jan. 23, 1902). The patient contracted and developed the disease in a northern climate; it ran a course of the quartan type for four weeks uninfluenced by treatment. Then a single dose of quinine (3½ grains) was followed shortly afterward by a severe hemoglobinuric attack. About five weeks later a similar attack followed the ingestion of 15 grains at one dose. The personal predisposition toward the drug seems to be set aside by the fact that the patient had been taking continuous small doses without any such effect; later on steadily increasing quantities were well tolerated. The patient's personal history, climatic conditions, and malarial changes in the blood could it seems be entirely eliminated, and the true cause for the attack assigned to the quinine.

The Source of Pever.—Although it has been demonstrated that an increase in bodily temperature is due to an increase in heat production, it still remains to eshown in what organs the increased heat production

The Source of Fever.—Although it has been demonstrated that an increase in bodily temperature is due to an increase in heat production, it still remains to be shown in what organs the increased heat production takes place. An interesting contribution to this question is made by the discoverer of the heat center in the brain, E. Anonsonn (Deut. med. Woch., Jan. 30, 1902). After eliminating by animal experiments the large glands and the blood as originators of heat, he shows by various devices that the muscles themselves are the true seat of fever production. A further proof is furnished by the following experiment: An animal is brought into a condition of fever by some definite irritant and the entire musculature eliminated as a factor by an injection of curare; this paralyzes the motor end organs in the muscles, but leaves the muscle itself free to respond. In all cases the temperature was found to drop about half a degree in ten minutes. In animals subjected to starvation methods the application of heat irritants produced only the slightest increase in temperature. From his observations the author concludes that fever consists of a pathological irritation of the known heat centers whereby the motortophic apparatus of the muscles, both voluntary and involuntary, is stimulated to a greater heat production, an increased metabolism, and a variation in the heat

How to See Stomach Curvatures.—Various methods of stomach examination have been advocated in order to locate the position of the curvatures. Many of them involve the use of special instruments and necessitate considerable skill. M. I. KNAPP (N. Y. Med. Jour., Feb. 15, 1902) suggests a very simple and, as he says, unerring method to determine this point. The patient lies flat upon the back, relaxing his muscles and breathing easily. The examiner stands at the side or at the shoulder of the patient so as to look either up to the stomach region or down upon it. As the patient breathes the examiner follows certain lines which he sees move up and down with respira-

tion. The curvatures of the stomach will be seen as very distinct fine lines moving under the skin even when the wall has considerable fat. A mark is made where the lines stop each time and to corroborate the observation percussion is used by placing the hand flat upon the abdomen, one finger on either side of the above line. If the line of curvature has been properly located a change in note will be found at that point. The percussion should be light and the stethoscope is of great assistance. It may be placed anywhere in the neighborhood of the stomach.

Cardiac Myopragia.—Attention has been called by Prof. Potain (La Médecine Moderne, Dec. 25, 1901) to a peculiar state of unstable biological equilibrium in various viscera. How many people there are who have one or more organs which do their proper work under ordinary circumstances, but rebel against the least extra requirement. This condition Potain called myopragia, and he found it most common in

called myopragia, and he found it most common in the heart. It is important to recognize such a condition, for a heart of this kind may be much benefited by the daily administration of a granule containing 1/4 of a milligram (gr. 1/200) of Nativelli's digitaline.

Transmission of Bovine Tubereulosis.—In an endeavor to record impartially the various data bearing upon the question of the intercommunicability of human and bovine tuberculosis, ADAMI (Phil. Med. Jour., Feb.

22, 1902) comes to the following conclusions: (1) Bovine tuberculosis is easily conveyed from cattle to cattle; for practical purposes other modes may be neglected. (2) Natural infection of cattle with human tubercle bacilli is extremely rare. (3) Swine are easily infected with both human and bovine bacilli and in very rare cases might act as intermediaries. (4) Bovine tuberculosis can be eradicated even when the human form remains widespread. (5) Human tuberculosis is usually conveyed by inhalation, more rarely through the alimentary or the genital tracts, or by surface wounds, and the bacilli are conveyed from previous cases of the disease in man. (6) The bacilli of man and cattle do not present specific differences, merely racial ones. (7) It is possible to transmit bovine tuberculosis to man through wounds or through the digestive tract; this is usually the case in infants and children. In passing through cattle the bacilli seem to acquire a lessened virulence for man and it evidently requires a large number, especially from extensively diseased cattle, to produce any effect; all animals showing physical signs of tuberculosis or udder disease should be condemned. As a final criticism of Koch's recent address, he laments the manner in which his conclusions were published, in so far as they should not be interpreted to influence in the slightest degree the legislative measures adopted to reduce the danger to cattle and the community resulting from the spread of tuberculosis among domestic animals. In not having done this he left it to be inferred that legislation against bovine tuberculosis is in excess of what is

necessary.

Tuberculosis in Infancy.—The diagnosis of tuberculosis in earliest infancy and up to the fifth and sixth years of life affords considerable more difficulties than in adults, says A. Querra (Münch, med. Woch., Feb. II, 1902). In most cases the disease finds its beginning in the glands and pulmonary involvement follows owing to rupture into a bronchus; hence, the usual site is at the root of the lung and never at the apex. Bronchopneumoniæ following the infectious diseases also frequently lead to tuberculosis and here also, for mechanical reasons, the apex escapes, the lower lobes on both sides of the spine being generally affected. Concerning frequency, hardly any cases have been reported in the first three or four weeks of life and only

a few in the first months after birth. Formation of large cavities is not common. Little can be said of symptoms; there may or may not be a slight cough; râles without signs of consolidation occur here and there over the lungs and fever may be slight or entirely wanting. Unfortunately sputum can be obtained only with difficulty for examination, but a trick may here be employed: After an attack of coughing, the index finger, wrapped in sterile cotton, is introduced behind the tongue and sufficient material is thus obtained.

SURGERY.

Nephrotomy in Nephritis.—Renal disease has been considered almost invariably as a contraindication to operative interference of any kind, yet Harrison, in 1896, proposed incision of the kidney in acute nephritis, scarlatinal or otherwise, for reduction of congestion and, in his belief, prevention of chronic nephritis. Edebohls practised decortication for the cure of nephritis. C. Mongour (Jour. de Méd. de Bordeaux, Feb. 9, 1902) reports two cases, apparently hopeless, which were successfully treated by nephrotomy after all other measures had failed. To the class of patients beyond therapeutic treatment the author limits the operation; yet, as a last resource, finds its justification in the fact that autopsy has shown, in many cases, sufficient healthy tissue in the kidney to carry on its function, were it not for the presence of congestion, the relief of which would, in all probability, have averted death, absolute renal insufficiency being regarded as made up as a rule of permanent insufficiency due to the renal lesion and of temporary insufficiency which it is possible to relieve.

Osteitis Deformans.—Only ten cases of this rare disease have been reported in this country thus far. Another is added by J. C. Wilson (Phil. Med. Jour., Feb. 15, 1902), the patient being a male, aged sixty-three years, of good previous history. The history extends through a period of sixteen years, the first symptom noted being an outward bowing of the legs, followed some five years later by a bowing of the forearms, all of which grew progressively worse and were accompanied by an increase in the size of the head and by a kyphotic condition of the spine. The case is minutely described, but no form of treatment was found to be of any avail.

Effects of Cocaine and Eucaine.—A summary of the experimental research of the action of these drugs and the clinical application of the evidences is submitted by G. CRILE (Jour. Amer. Med. Assoc., Feb. 22, 1902). A large number of experiments on animals were made in accordance with the idea that the injection of cocaine or eucaine into the substance of a nerve trunk causes an effectual physical block and prevents the passage of all afferent and efferent impulses. They form no chemical combination, but merely suspend the functional activity of a nerve. When applied to the floor of the medulla all the manifest functions of that organ are temporarily suspended, except the heart's action and that is modified. Both eucaine and cocaine block the impulses set up by electrical stimulation even after death. The inhibitory action of the vagi is wholly or partially suspended, and it is probable that the increased rapidity of the heart action is due to the removal of this vagal influence and not to the stimulation of the accelerators. It was also found that dogs under the influence of these drugs endure more exposure and injury of the intestines, without any fall in the bloodpressure than those not so treated. If a series of injections were administered at given intervals, a marked tolerance was acquired, so that finally little effect could be produced. The clinical application of the experimental evidence is supported by a recital of the author's cases. Amputation of the leg below the knee was done

returned cutaneous, anterior crural, and sciatic nerves. Four operations in the area of distribution of the ulnar nerve and two amputations at the shoulder-joint were successfully done. In all these cases the important point demonstrated was the avoidance of shock, due to the feet that all impulses whether constitution, due to the fact that all impulses, whether constituting pain, or controlling vasomotor, respiratory or cardiac mechanisms, are "blocked" or "physiologically amputated." Given hypodermatically, experiments show that these drugs diminish shock in operations on the splanchnic area, and this evidence seemed to be corroborated in two cases of gunshot wounds of the intestines

Ligature of the Dorsalis Pedis Artery.-There are few arteries which present so many anomalies as the dorsalis pedis. According to the researches instituted by VIANNAY (La Sem. Méd., 1902, No. 4), the course of this vessel as described by most of the classical treatises is not met in practice in the majority of the cases. Most frequently the artery in question bifurcates at its exit from beneath the anterior annular ligament of the tarsus. The two branches may be of equal volume: the one, the internal, follows the usual course of the normal dorsalis pedis artery, while the other, the external, corresponds to the dorsalis tarsi artery. It is in those cases in which the two branches of bifurcation are of unequal size that the trouble arises. Sometimes it is the internal which is the larger, and hence the typical classical description of most authors. Sometimes it is the external branch which is the greater, while the normal dorsalis pedis on the other hand is rudimentary or at times even absent. Sometimes also the blood-supply of the back of the foot is due entirely to the external artery, which then corresponds to the dorsalis tarsi artery. Such being the case, if one depend entirely upon the typical method of ligating this artery he is in danger of finding only a very small vessel or, perhaps, none at all. He is then compelled to search beneath the annular ligament, which is the only point where the vessel can always be found. Therefore, in order to avoid this useless search, Viannay proposes that the classical incision be extended upward, so that the inferior border of the annular ligament shall be exposed. In this way the artery will always be found, whether it consists of one or two branches at this point.

Poultice Method of Healing Abscesses.—In order to avoid the danger of infection from septic materials used in poultices, M. B. HUTCHINS (N. Y. Med. Jour., Feb. 22, 1902) advises the use of a three-per-cent. carbolic-acid solution in mixing up the flaxseed and claims that he obtains excellent results without making wide incisions. The poultice is changed frequently, the moisture affording constant drainage and the dressing readily absorbing the discharge. There is often a saving

of seventy-five to eighty per cent. of time in healing.

Prevention of Vomiting after Ether Anesthesia. Believing that the nausea and vomiting after ether administration are due to the irritant effect of the drug upon the gastric mucosa, R. J. HESS (Med. Rec., Feb. 22, 1902) has made various experiments in which the amount of the drug used was diminished as much as sible and the poison diluted before being eliminated. It is known that when sufficient quantity is taken into the blood of animals, its excretion into the stomach and by the kidneys may set up an acute inflammation of e organs. By working along these lines, it was not that the shorter the operation and the less the her used, the less was the danger of subsequent vomit-L In preparing patients for operation it has been custry to stop all solid foods for at least six or eight before the operation and even to diminish the tities of water are allowed during the twenty-

five times with anesthesia secured by "blocking" the four hours after the operation. It is believed that these procedures so drain the system of fluids that the ether excreted is in a much more irritating and con-centrated form. To avoid this he gives plenty of water up to the time of operation and as soon as the patient awakens from two to six ounces are administered. Very good results were obtained by this method.

Taxis in Obstructed Hernise.-A warning cry against the use of taxis in incarcerated hernize is raised by O. Law (Münch. med. Woch., Feb. 4, 1902) for the intestines are so frequently injured and reduction en bloc is effected with so little effort that there is no excuse for employing this antiquated method in these days of aseptic surgery. It is too often found that the symptoms persist after apparently successful taxis and that then an operation much more serious and difficult than a primary herniotomy will become necessary. The hernial sac should always be opened before reduction and local anesthesia may be employed if this is thought best.

Rare Anomaly of Biliary Passages.—The following rare anomaly was found by H. Kehr (Münch. med. Woch., Feb. 11, 1902) during an operation. The gall-bladder was attached to the left lobe of the liver, the cysticus emptied into the narrow left hepaticus, which joined close to the duodenum with the very much enlarged right hepaticus, the course of which was a normal one along the lower edge of the he-

pato-duodenal ligament

Position for Gall-Stone Operations,-While attempting to remove a stone incarcerated in the common duct, W. RUHL (Münch. med. Woch., Feb. 4, 1902) accidentally cut into a large vein, presumably the portal. The vessel could not be grasped owing to the fact that the deep funnel-shaped wound imediately filled with blood which obscured everything and the patient would no doubt have bled to death had not the happy expedient been resorted to of elevating the trunk an angle of 45°, so that the blood could readily flow out and its source be determined. Not only is hemorrhage more readily controlled by this method, but the parts are rendered more accessible and the relations more nearly approach the normal in all opera-

tions on the upper part of the abdomen.
Surgery of the Gall-Ducts.—An analysis of cases of gail-stones treated during a period of ten years af St. Hedwig's Hospital in Berlin shows that 41.5 per cent. of the cases treated medically were cured, while surgical interference was successful in 98 per cent. of the cases in which it was practised. The surgeons in this institution, says H. SCHEUM (Berl. klin. Woch., Feb. 17, 1902), have come to regard excision of the gallbladder as the normal surgical procedure for the treat-ment of gall-stones. In a number of cases which this writer describes in detail, cholangitis essentially determined the clinical picture. One patient had high fever, pain in the hepatic region, liver enlarged downward, and marked icterus. Aspiration was performed over what was assumed to be the region of the gallbladder, the needle being passed inward about 6 cm.; bile without pus was withdrawn. Laparotomy was begun at once to prevent as far as possible the escap of bile into the peritoneal cavity. The gall-bladde proved to be small; the common duct was not enlarged; the liver was much enlarged, and the aspirating needle had penetrated into the hepatic substance. Renewed puncture of the parenchyma of the liver resulted as did the original puncture. The diagnosis was therefore cholangits with closure of many smaller biliary passages, the main ducts being free. Cystostomy would here have been valueless. By means of the Paquelin cautery, a six-inch incision was made directly into

the parenchyma of the liver; a large biliary duct was met, from which bile isued with great force. The operation was very successful. At first the bile was discharged almost wholly through the wound; but from the tenth day after the operation the stools resumed their normal color and the icterus rapidly disappeared. According to Scheuer, no similar operation is described in the literature, although Hirschberg at the last International Medical Congress recommended this procedure in the treatment of hepatic cirrhosis. The operation is evidently not followed by the serious hemor-

rhage which might be anticipated.

Gastric and Duodenal Ulcers.—In the current text-books on medicine one finds a bewildering number of theories touching on the etiology of these conditions; none are supported by adequate evidence; some of the most favored, according to C. R. Box (Brit. Med. Jour., Feb. 8, 1902), are as follows: (1) Arterial thrombosis; (2) embolism; (3) endarteritis obliterans; (4) simple spasm; (5) mechanical injuries; (6) diminished alkalinity of the blood; (7) microbic infection of the lymphoid follicles of the stomach-wall. This last is the most recent theory and for the following reasons seems to have a very practical bearing: (a) For any part of the intestinal tube below the duodenum the theory of the infective nature of ulceration is at once accepted. Typhoid, tuberculous, and dysenteric ulcerations are unanimously attributed to an infective The same holds for ulcerative colitis and the destructive process in appendicitis. (b) The fact that it is not uncommon to find that ulcers both in the stomach and in the duodenum may be multiple, and not only multiple, but so placed-either exactly opposite or quite close to one another-that infection from one to the other may have easily occurred. When two ulcers are placed opposite to each other, it is said that close examination will often show that one is an older ulcer than the other. These opposed ulcers have repeatedly been met with postmortem, not only in the stomach but also in the duodenum. (c) The appearance of a recent acute ulcer at the time of operation for perforation is itself highly suggestive, and it was this appearance which first seriously directed attention to the microbic theory. Such an ulcer is always surrounded by a zone of highly-edematous and softened tissue of considerable extent. Stitches easily tear through the edematous wall, and so considerable difficulty may be experienced in applying the sutures. Every surgeon who has had much experience in the suturing of acute perforated ulcer recognizes this edematous condition. That gastric ulcer is a disease of great latent danger is shown by the fact that a large percentage of ulcers perforate with fatal results without giving warning of their existence by any other symptoms than vague dyspeptic pains. Hematemesis and melena, which will probably for a long time to come be the only pathognomonic signs of gastric and duodenal ulceration, are often lacking. The differential diagnosis of gastric ulcer must be made, first, from renal disease; second, from locomotor ataxia; and, third, from hysteria. latter cases fortunately are rare. The blood is obtained by injuring mucous surfaces, such as the mouth or vulva. These patients often mix their urine with their vomit and indulge in other fraudulent methods which are as interesting to watch as they are difficult to trace. A last possible point in establishing a differential diagnosis in these conditions lies in remembering that hematemesis occasionally occurs in mitral disease. Although ulceration is much more frequent on the posterior walls of the stomach, perforation with general peritonitis more often occurs anteriorly. This is due to the protection afforded the retrogastric space by the lesser peritoneal cavity. It is necessary in all cases of

perforated ulcer, whether they have been operated or not, to keep a very careful outlook for localized co lections, the most frequent sites of which are in the lesser sac, subphrenic, perisplenic or pelvic. In con-clusion, then, a diagnosis of ulcer should be established positively only on the occurrence of hematamesis or melena; tentatively only after a consideration of the following points: (1) The patient's statement as to hematamesis should be received with reserve and corroborated. (2) In doubtful cases it is necessary to see the vomited materials one's self if this be possible, and, better still, to observe or have observed the actual act of vomiting. (3) In all cases the urinary examination should be a routine procedure. This examination should be thorough, and include the search for casts as well as for albumin. A single examination is often not enough. (4) The eyes should always be examined particularly with a view to the presence of the normal light reflex, and the occurrence of changes in the fundus. Optic atrophy may put one on the track of locomotor ataxia; the presence of optic neuritis may reveal an unsuspected cerebral tumor, and the presence of neuroretinitis may indicate renal disease. (5) An examination of the stomach-contents for the presence of excess of free HCl should always be made when practicable, and if the first examination be negative a second should be undertaken before one can be sure of its absence. Hyperacidity is a valuable, although not absolutely constant, sign of gastric ulceration. (6) Every patient in whom gastric ulcer is diagnosed should be looked upon as seriously ill. The disease is commonly treated much too lightly, considering its liability to such serious and fatal complications. Prolonged rest in bed and proper dieting for some time are essential in all early cases.

Gold Sutures.—The advantages of gold sutures are especially urged in operations for hernia. I. TANSINI (La Riforma Medica, Jan. 18, 1902) states that the character of the sutures used is frequently responsible for suppurative conditions occurring after operations for the radical cure of hernia. The advantages claimed for the gold suture are that it can be drawn out to a very fine thread, being superior to silver in this respect; it can be readily and thoroughly sterilized; it is flexible and resistant, and as easy of application as silk thread; it is more rapidly fastened by a simple twisting of the ends, rather than tying, as in

the case of the silk suture.

EYE, EAR, NOSE, AND THROAT.

Climate or Spectacles?—Under this title attention is drawn by G. S. Hull (Ophthalmic Record, Jan, 1902) to cases of neurasthenics sent to Pasadena for rest who apply for glasses to relieve them of the discomfort they feel in the brighter sunshine of California. He notes that when he has fitted them suitably for refractive errors, not only are they relieved of the trouble from increased sunlight, but they are also relieved of that for which they were sent from the East, their neurasthenic symptoms; and he very pertinently asks, "Climate or spectacles, which?" leaving the answer to be given by the physicians in the East.

Perforated Disk in Subjective Testing of the Re-

Perforated Disk in Subjective Testing of the Refraction.—In using a mydriatic the disadvantage is in the enlargement of the pupil; a desideratum would be a drug which would paralyze accommodation and not affect the pupil. F. B. EATON (Ophthalmic Record, Jan., 1902) advocates the use of a disk with 4 mm. perforation for distance and 2½ mm. perforation for near to confine the rays of light to what he prefers to call the natural dioptric path, called by Jackson the "visual zone." He claims to avoid errors in astigmatism and to arrive easily at the meridian of least refraction.

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SATURDAY, MARCH 22, 1902.

THE PROPOSED PRIVATE SMALLPOX HOSPITAL.

So much has appeared of late in the daily papers concerning the necessity of a private hospital for well-to-do smallpox patients that an interview with some of those gentlemen who are of necessity most conversant with the subject must be interesting and to the point.

Dr. George T. Stewart, the superintendent of Bellevue Hospital, who comes into very close contact with this type of work and who is a recognized authority in hospital management, spoke most emphatically on the subject. He said in part that there were several important reasons which seemed to him paramount, and which, when subjected to calm criticism, could lead but to one conclusion. The psychical factor is always paramount. Under this the friends and family are first to be considered. The effect of a new environment on the patient himself. For some reason or other the separation by water from loved ones afflicted with smallpox seems to be peculiarly dreaded by most people. So far as the effect on the patient goes, it is not without important medical significance, for for one accustomed to a comfortable environment it is by no means propitious to be cast suddenly into an entourage designed to fill the needs of our more humble citizens, this being the character of the accommodations which are given to all at North Brother Island.

"What do you think would be the effect upon you or me," said the affable superintendent, "ifwe were taken from our comfortable quarters and obliged to wear the garb, to eat the food, to sleep in the bed, to see the sights, and to hear the sounds to which our gentle organs are unaccustomed? The psychical effect upon such patients on visiting North Brother Island is of necessity somewhat similar to that which would be observed in us if we were put up in the penitentiary and obliged to wear the medieval hob-nailed shoes which characterize the chief terrors of that institution." So far as the administration of the North Brother Hospital goes, Dr. Stewart says that, considering the funds meted out by the city for the purpose, the patients get fully as good care and about the same type of food as are given at Bellevue and the other city hospitals. It is in the nursing staff, however, that the hospital is unfortunately crippled. Even among professional nurses the idea of smallpox is still the ancient one, namely, that it is a noisome disease of a most filthy character. Where there are so many other openings for professional nurses, who, notwithstanding their many virtues, are rather hedonistic than altruistic as compared with the old-fashioned Sisters of Charity, it is very difficult to get a good nursing corps. Dr. Stewart believes that \$100,000 has been promised to the City, but feels that the chief difficulty in the acceptance of this donation is that the Board of Health is not empowered to run such an institution until the funds from private sources are adequate to cover all its running expenses. Dr. Stewart said, "You may quote me as saying anything and everything in favor of our having such a hospital as is proposed."

Dr. Hermann M. Biggs, while not as cordially in favor of the project as Dr. Stewart, would certainly offer no objection to the proposed hospital. He said, however, that there were much more crying needs for a modern hospital with suitable equipment to care for the poor children of the Borough of Manhattan who were afflicted with measles and scarlet fever, the present accommodations being quite inadequate. As to the gift of \$100,000, that would be a mere drop in the bucket; the cost of the land would be at least \$250,000, the only suitable site in the Borough being at the foot of East Sixteenth Street, and the building itself would cost an additional \$100,000. This

might all be readily compassed, particularly if some rich people failed to get vaccinated, but the main difficulty is that such an institution would need an endowment fund which would yield an income of \$150,000 a year. Such a hospital is extremely expensive to run because among the rich, at least, smallpox is essentially epidemic rather than endemic in this city and most of the sporadic cases would continue to be cared for by public charity. For months at a time the hospital would be empty, but its expenses would continue, for the staff must of necessity be permanent. Even in epidemic days, the income from the rent of rooms, which under any conditions would have to be almost extortionately high, would not begin to defray a tithe of its expenses. Furthermore, it would not be possible for the Health Board to assume the control of a private smallpox hospital and go into the business of renting rooms without obtaining special legislation from Albany. "Let the rich people be vaccinated," said the doctor naïvely, "and there will be no occasion for any such institution."

ANTIVIVISECTION ONCE MORE.

THE Zoöphilists of Boston in their annual engagement at the Massachusetts State House are now presenting the notorious melodramatic extravaganza "Antivivisection" despite the recent striking failure there of the much more serious entertainment entitled "Antivaccination"; the two companies are not altogether identical, but similar at least in their general attitude of opposition toward our public medical institutions.

The bill which these hysterical or else sciolistic people have presented to the Legislature for hearing before a committee is somewhat less drastic and so less harmful than those of former years, it being obviously its framers' intention, clearly avowed in part, to use it chiefly as the entering end of a wedge which as soon as possible shall entirely prohibit animal experimentation. The petitioners base their bill on the possibility that abuses in vivisection may exist in the future, which possible abuses are to be severely punished, as indeed were meet, when they shall have been detected by the "agents of the societies for the prevention of cruelty to animals." The counsel for the petitioners, in a recent session, said, "It is not necessary for our purposes to show that abuses do exist. It is enough to show liability to abuse." To this deliberate statement of policy the chairman of the legislative committee naturally objected very strenuously, and, indeed, it is

the most striking feature of all these misguided hearings that, despite the openness of all physiological laboratories (except to newsboys and intoxicated persons perhaps), no evidence of any cruelty whatever has ever been presented and substantiated The committees of the Legislature of the Commonwealth visit the laboratories, see exactly what is going on therein, and forthwith unanimously give the petitioners prompt "leave to withdraw."

The two paragraphs of this year's proposed bill which are most objectionable to the cause of medical research read as follows: "Every animal subjected to such experiment shall be killed immediately upon the conclusion thereof and while under the influence of the anesthetic"; and "The authorized agents of any society for the prevention of cruelty to animals incorporated under the laws of this Commonwealth shall be permitted to enter any place registered as required by Section I hereof, at any time, without previous notice, and to take the name and residence of any person found therein." (The Society for the Prevention of Cruelty to Animals, however, has little or nothing to do with this movement, fully aware as it is through its agents that no cruelty exists.) The former of these requirements would, if it were law, prevent the legal performance of some of the most important of experimental operations, as any fairly informed person will instantly appreciate. The latter of the quoted paragraphs would make all scientific surgical experiments at least impracticable, since it would render any such operation liable at any time to gross interruption through the noisy entrance or ignorant supervision, or both, of mensuch as these societies do and would employ astheir agents-retired policemen, superannuated janitors, or other unsympathetic laymen hired for a purpose at fifty dollars a month. What physiologist or pathologist or chemist would care to begin a research consisting perhaps of a long series of delicate surgical operations, likely asnot with the simultaneous management of a complicated recording apparatus, under such conditions as these!

Thus the present proposed bill practically would prevent, if passed, what are perhaps the most valuable researches of our modern physiology, etc., while it would put into practice a system of espionage quite at variance with the noble standard of the profession of medicine. We shall look for a denial to this petition at least not less prompt and emphatic than its predecessors have received.

THE BLACKWELL'S ISLAND PHTHISIS HOSPITAL.

THE much-discussed question of the care of the City's indigent phthisis cases has for some time past agitated the lay and medical journals, but until recently nothing tangible has been accomplished. It would seem that the problem were either outside the realm of possibility, or that the City officials were not sufficiently aware of the urgent necessity for active measures.

The new Commissioner of Public Charities, Mr. Homer Folks, has made the first move in the proper direction in transferring the tuberculous patients of the charity hospitals to one of the old buildings on Blackwell's Island, which was formerly occupied by the Manhattan State Hospital for the Insane. This, however, is but a prophylactic measure for a disease which in the past has wrought havoc among the non-tuberculous inmates of the various institutions devoted to the care of the sick poor. It has no bearing on the cure of the transferred patients, who were much better cared for in their former surroundings, in which they had the cheering influence of the other patients. In their new quarters they are in small cell-like rooms, shut off in many instances from the sunlight, to await the coming of the end.

This old insane asylum, as might naturally be conjectured, was not designed for the purpose it is now to serve, but was constructed for the care and restraint of the insane. Many of the rooms were really cells with barred windows and paneled doors. Such surroundings can only add to the already depressed mental condition of the tuberculous sufferers.

Commissioner Folks has asked the Board of Apportionment for eighty-eight thousand dollars to renovate these buildings, that they may be made suitable for the treatment of incipient cases as well as to furnish a home for the already doomed ones. Forty thousand dollars of this amount will be expended in the actual renovation of the building and in the construction of glass pavilions where the incipient cases can be scientifically treated by the latest approved methods.

It is the intention to devote the sum of five thousand dollars toward the remuneration of an efficient corps of doctors and nurses. To use a Hibernian hyperbole, such a proposition would be amusing were it not absolutely ridiculous. In the pavilion now occupied there are only one hundred cases. When the other four buildings are renovated there will be accommodations for an

additional four hundred patients, making the total capacity of the institution five hundred. With a physician to every hundred patients and a nurse to every twenty, at least five physicians and twenty nurses must be employed. The City pays its nurses on an average fifteen dollars a month. The twenty nurses would then so nearly consume the five thousand dollars that the physicians would have to contribute their valuable services for sweet charity. The Department will encounter no little difficulty in finding men who are willing to subject themselves to the constant danger of infection in return for the reward of board and lodging and one afternoon a week.

It is estimated that the five hundred patients can be maintained at a cost of eighteen thousand dollars annually. This is to include board, lodging and clothing. If the patients are to be cared for after the fashion of the rest of the City's hospital charges, the sum proposed will be more than sufficient. Congratulations are due to Mr. Folks for the interest he is taking in this matter. He is the first of his line to take up arms for the protection of the pauper "lunger" by endeavoring to plan and carry out some practical measure for his care and cure.

Judging from the experiences of previous charities commissioners who have made efforts to institute changes along scientific lines, the application for this modest sum of eighty thousand dollars will meet with opposition. It is probable that the knowledge of this fact has led the Commissioner to ask for the small sum, which is obviously inadequate.

While we cannot expect the Board of Charities to grant more than this, we at least hope that Mr. Folks will get the whole sum required. For with such an amount at hand he will be able to create the nidus of a future model phthisis sanitarium; and the old adage, now too true, that only the rich may hope to recover from the deadly grasp of the tubercle bacillus will then happily become a saying of the past.

ANIMAL EXPERIMENTATION.

A LITTLE book which cannot fail to be of interest to all medical people, to the Massachusetts legislators and to their constituents, indeed, to every person interested in medical progress (and who that is mortal is not one of the latter class?), was recently published in Boston.

The title in full of this widely-useful volume is "Animal Experimentation: A Series of Statements Indicating Its Value to Biological and Medical Science." Dr. H. C. Ernst is to be thanked for the publication of this collection of expert opinions, he having collected them and attended to their appearance in a form available to the public.

The quotation of a considerable part of the Introduction will make clear the sources of the material of this book and the reasons for its existence. "The following are the statements of various remonstrants to proposed legislation to further restrict experimentation upon animals for medical and biological purposes in the Commonwealth of Massachusetts. They were called out at the legislative hearings upon this subject in the spring of 1901. The agitation in favor of such further restriction has been carried on for several years, and the views of the remonstrants are nowhere to be found in print. Many of the friends of research have expressed a wish to have some document to which reference may be made for the facts of the case, and it has therefore been decided to publish this book . . . It is hoped that the statements that follow will be of value in placing the matter of experimentation upon animals, for purposes of teaching and investigation, in a clearer light before those interested in the subject."

Among the competent and noteworthy opinions quoted are those of Bishop Lawrence, President Eliot of Harvard, President Capen of Tufts, President Hall of Clark, and Drs. H. P. Bowditch, Wm. T. Sedgwick, J. S. Kingsley, M. H. Richardson,, J. J. Putnam, W. T. Porter, W. T. Councilman, Theobald Smith and H. C. Ernst. Besides these names, known over the land, sixteen others, clergymen, teachers, surgeons, physicians, all notable in the ranks of the sincere and trustworthy, contributed to this unique volume, destined to have great influence in combating this particular neuropathic menace to the public weal.

Among the more notable contributions are the remarks of Prof. Sedgwick of the Massachusetts Institute of Technology, Prof. Kingsley of Tufts, and Profs. M. H. Richardson and Theobald Smith of Harvard. Professor Porter of the Harvard Medical School supplies twenty-four pages—which constitute in themselves a powerful document, an article of the precise sort which, wide spread in the magazines of large circulation, would soon do much to educate an apathetic public so that even in Massachusetts (often deemed the home of the manifold antimania) this annual annoyance to legislators and to scientists alike would soon die out in the face of a public opin-

ion sufficiently interested to declare itself. The séances of the present year's "agitation" have already begun at the State House on Beacon Hill.

ECHOES AND NEWS.

NEW YORK.

Brooklyn Medical Club.—Professor E. W. Scripture of Yale University will deliver the annual lecture of the Brooklyn Medical Club at the Medical Library Building, 1313 Bedford Avenue, March 24, 1902, at 830 p.m. His subject will be, "A Chapter from the New Psychology; Recent Researches on the Voice," with the exhibition of lantern slides, experiments and other illustrations.

A Sound Position.—We approve most heartily of the following comment made by the "Sun" of last week, and might well hope that all of our "lay" contemporaries were as rational in their editorial expressions regarding medical topics: "One Cadin, an Assemblyman, has introduced a bill for the creation of a State commission 'to investigate into and report on the history, nature and pathology of smallpox and also of vaccination as a preventive of the disease.' There is no excuse for pandering in this fashion to ignorance and quackery. There is no doubt as to the efficacy of vaccination in limiting the ravages of smallpox. It has stood the test of a century. It has been accepted by the great mass of the public as well as by men of science. An investigation of this sort can only tend to confirm those who are prejudiced in their folly. Let us not have any legislation of the sort which has taken down the bars of England, for example. The individual has the right to hold all sorts of silly views. But he has not the right to become a danger to his neighbor."

Compulsory Vaccination Law not Wanted.—At a meeting of the Board of Health last week its three members, Dr. Lederle, Dr. Doty, and Police Commissioner Partridge being present, a resolution was passed declaring against compulsory vaccination in any form. The resolution stated that in the opinion of the Board the passage of any bill requiring compulsory vaccination was unwise and uncalled for. The members were agreed that the measure now in the Senate and Assembly Committees was special legislation against all local boards of health and implied that these local boards were incapable of conducting their own department. The members believed that vaccination should be taught not by force but by education, and that it could not afford to have the present harmonious relations between the Board and all classes in the city upset by any mandatory legislation at Albany.

datory legislation at Albany.

Dr. Knapp's Seventieth Birthday.—Dr. Herman Knapp celebrated his seventieth anniversary Monday last. Dr. Knapp was the founder of the New York Ophthalmic and Aural Institute. He was born in Prussia in 1832, and was graduated from Giessen University in 1854. He was professor of ophthalmology at the University of Heidelberg from 1864 to 1868, and since 1838 has held the same position at the College of Physicians and Surgeons in this city. It was at Dr. Knapp's suggestion that the institute of which he was the founder will move from its present location, No. 44 East Twelfth Street, to the northwest corner of Sixty-fourth Street and Central Park West. Of the new plans for the new institute it is said that the trustees have given their consent to his proposal that the institute should be moved and should be modernly

equipped. The members of the Board of Trustees have subscribed \$100,000, which will make one-half of the purchase price of the lot on the Sixty-fourth Street corner. About \$400,000 more is needed to build the new institute. This amount must be raised by voluntary contributions. The amount should be subscribed and the building constructed in three years.

and the building constructed in three years.

Board of Managers of Craig Colony.—Governor Odell has nominated to be managers of the Craig Colony for Epileptics: Dr. Pearce Bailey of this city, Mary E. Joy of Syracuse, Abbot Law Dow of Brook-lyn, Jeanette R. Hawkins of Franklin County, George L. Williams of Erie County, and James H. Loomis of

Wyoming County.

Trustee of State Hospital for Tuberculosis.—Dr. John H. Girdner of this city was nominated to be a trustee of the State Hospital for the Treatment of Incipient Pulmonary Tuberculosis, to fill the vacancy cuted by the resignation of Norman S. Dike.

caused by the resignation of Norman S. Dike.

Appointment of Dr. Kerley.—Dr. Charles Gilmore
Kerley has been appointed attending physician to the
New York Infant Asylum, West 61st Street and Am-

sterdam Avenue.

New Claimant for Journalistic Honors.—The "American Medical Journalist" is the title of a newly-launched periodical devoted to the interests of medical advertising. The first number is bright, entertaining and full of instruction. If the succeeding numbers are as interesting as this one, we predict success to the new enterprise and wish it prosperity.

PHILADELPHIA.

Visiting Nurse Society.—At the sixteenth annual meeting of the Philadelphia Visiting Nurse Society, held March 14th, all the officers were reelected. During the past year two new branches have been opened, one in Germantown and the other on South Tenth Street, there now being the central office and four branches. A fifth branch in West Philadelphia is contemplated. The Society aims to give the poor and those of moderate means the best nursing obtainable, the charges for daily visits being only nominal.

Eye Hospital in Straitened Circumstances.—The Wills Eye Hospital which is under control of the City Trusts is in need of repairs, new instruments, etc., and the income from the estate is not sufficient to meet even the running expenses. It has been necessary to reduce the number of patients and as a consequence the hospital is not doing the work it was intended to accom-

plish; \$5,000 is needed for immediate use.

Ground Broken for Hospital Addition.—Ground was broken March 13th for the proposed addition to the Samaritan Hospital. The addition is for the two-fold purpose of supplying needed room for the growing demands upon the hospital and of furnishing facilities for instruction to the students of the medical department of Temple College.

ment of Temple College.

Dr. Morse Visits Philadelphia.—Dr. John Lovett Morse, of Boston, addressed the Pediatric Society March 11th on "Some Diseases of the Kidneys and Bladder in Infancy." A reception at the Aldine followed the address. Dr. Morse also addressed the students of Jefferson Medical College during the day.

Spring School of Medicine to be Established at

Spring School of Medicine to be Established at the University of Pennsylvania.—A matter of no small interest to the medical profession of the Eastern, Middle and Southern States, is the decision on the part of the Medical Department of the University of Pennsylvania to inaugurate, during the coming spring, a series of courses for practitioners of medicine. This movement has been under contemplation for some time and is just now to be consummated. The reasons for

and purposes of the spring school are set forth in the last report of the Provost in these words: "The many advantages possessed by a large medical school in pro-moting and teaching the science and art of medicine, make it desirable that others than undergraduate stu-dents should be admitted to its benefits. There exists a body of physicians who, either because their pro-fessional lives are spent away from active medical centers or because of original defects in their training, find it difficult or impossible to keep in touch with the progress of medicine. For such of these physicians as may desire to extend, complete, or revive their past training, a graduate course of study would be of great advantage. The medical school possesses, moreover, the equipment needed to supply such instruction. The facilities provided by hospitals are at command throughout the entire year, and those of the laboratories may also be made available." Courses of instruction will be offered in medical chemistry, anatomy, physiology, bacteriology, pathology, clinical medicine and surgery, gynecology, ophthalmology, otology, dermatology, laryngology, and other specialties. All the courses have been designed to be practical in character and to fit the abilities and purposes of the practitioner of medi-cine. Summer schools for post-graduates in medicine are conducted in connection with several other medical schools, but with one or two exceptions the faculties take a minor part in the teaching, this work being left to the junior staff. This fact is significant in view of the prominent part to be taken by the Medical Faculty of the University in the proposed spring school.

CHICAGO.

Visiting State Institutions.—Dr. John R. Neely, Medical Director of the Institutions at Dunning, is visiting the State institutions throughout the East, paricularly Boston, New York and Ohio. He is in quest of information in regard to the way similar institutions are operated before deciding upon certain changes which he has in contemplation at Dunning. After his return Dr. Neely will make recommendations to the County Board, and probably make certain demands of the Civil Service Commission. He will have entire charge of the professional end of the institution, separating the business from the professional work of the physicians and nurses. This has been thought advisable by the County Board, and will doubtless increase the efficiency of the institution.

Dr. Murphy Honored.—The highest honor in the gift of the University of Notre Dame and perhaps the most highly-prized honor that can be attained by a Catholic layman in America, namely, the Laetare Medal, has been conferred this year on Dr. John B. Murphy, of this city, in recognition of his merit as a Christian

gentleman and his great work in medical science.

Trust Deed to Secure a Loan.—The Hospital of the Holy Family of Nazareth has given a trust deed to secure a loan of \$50,000 for five years. The building is nearing completion, and when complete will have cost, it is easily in the paighteehood of \$200,000.

rearing completion, and when completed will have cost, it is said, in the neighborhood of \$400,000.

Promotion of Dr. Shepard.—Dr. John L. Shepard, Acting Assistant Surgeon, U. S. A., has been made first lieutenant and assistant surgeon in the regular establishment.

Resolution on the Death of Dr. Fenger.—At a meeting of the Physicians' Club of Jacksonville, the following resolution was passed: "Resolved, That in the death of Dr. Christian Fenger, of Chicago, the medical profession has lost a member whom it delighted to honor; one whose work, like his life, was confined to no one land or tongue, but was as cosmopolitan as the fraternity he honored with his name; a great surgeon.

pathologist and teacher; one of whom it might fit-

tingly be written, Doctores docuit."

Chicago Medical Society Adjourns out of Respect for Dr. Fenger.-This Society met at the usual hour, March 12th, after which a motion was made that a committee be appointed to prepare for a memorial meeting in honor of Dr. Fenger, to be held some time in April. The Society then adjourned, without taking up

the formal program.

Importance of Rickets in Girls from an Obstet-rical Standpoint.—Dr. Charles S. Bacon read a paper on this subject before a recent meeting of the Chicago Academy of Medicine. Rickets is a common disease of infancy. Its most serious results so far as girls are concerned do not manifest themselves till the childbearing period. It is estimated that from 3 to 7 per cent. of all women have contracted pelves due to rickets. Cases are given to illustrate the importance of a pelvic contraction of one to two centimeters. Concerning the etiology of the disease, the effects of insanitary surroundings, improper food, gastro-intestinal disease are acknowledged, but the essence of the trouble is not yet determined. Among the food deficiencies, lack of fat is undoubtedly the most important. The most common pelvic deformity is the simple flat pelvis. This is caused by the weight of the trunk when the child is in the sitting or standing position. The soft bodies of the sacral vertebræ are crowded forward between the wings of the sacrum contracting the anteroposterior diameter. The strong sacro-iliac ligaments pull backward the posterior margins of the ilia and because of the anterior fixation of these bones at the symphysis the transverse diameter of the pelvis is increased. The indications for the treatment of rickets in its acute stage are to control the disease process as soon as possible and to prevent the pelvic deformity. The disease process is corrected by dietetic and hygienic management. Gastro-intestinal infection is overcome and the child placed in as good sanitary surroundings as possible. Fat, which is often lacking in the diet, is given, often in the form of codliver oil. The question of the prevention of pelvic deformity is new. Its importance has been overlooked by orthopedists. It is very difficult to keep the child in the horizontal position. If it is possible to devise apparatus which will take the trunk pressure from the sacrum it would be a valuable device.

Relation of Evolution to Infection, with Special Reference to Venereal Diseases.-In a paper on this subject, Dr. G. Frank Lydston presented in detail his views on the variability of pathogenic organisms and their effects, explained by their tendency to revert toward a less highly specialized form (atavism), a principle well understood by students of evolution. The general rule governing such variation may be stated in the formula: The tendency to variation of any species is in inverse ratio to its degree of specialization by evolution. Micro-organisms, being among the lowest and simplest forms of life, are little specialized, relatively, and are consequently subject to wide variations in their pathogenicity. The gonococcus is not always the same organism in its capacity to cause a specific urethritis. Indeed, the gonococcus may be found in the urethra without its having ever excited any inflammatory reaction; in other words, "the gonococcus is not always the gonococcus." The same fact is true of the diphtheria bacillus, the diplococcus of pneumonia and numerous, if not all, other pathogenic micro-organisms. Every disease germ is subject to modification in its disease-producing capacity by its environment, by the suitability of the soil upon which it grows, whether in test-tube culture, or in the tissue soil of its victim. This tissue soil in any individual may be so unfavorable, by reason of a natural immunity or resistance possessed by him, as to render the germ relatively or absolutely harmless. One has to recognize, then, in the power of germs to produce disease, the two factors of the variability of germ species, and the resistance offered to them by unfavorable tissue soil in the individual. The interrelation by these two factors determines the degree of infection. This variability in the capacity of germ species to cause disease has not yet been grasped by the medical profession, though bacteriologists and pathologists are beginning to reckon with it. There is nothing novel or iconoclastic in accepting this doctrine. It is simply the application of the principles of evolution and involution to germs, and to germs these principles apply with particular force because germs are little specialized and therefore poorly fixed species.

CANADA.

Ontario Medical Council.—Session of the Ontario Legislature has closed, but there will be no changes in the composition of the Ontario Medical Council made this year. The proposed amendment of Dr. Jessop to the Ontario Medical Act has not materialized. Instead of recommending its adoption, the special committee of the House to which it had been referred presented a report on the matter which has been received and adopted. This report provides that the Government shall undertake to submit, to the medical practitioners of Ontario next fall, questions, answers to which will afford definite information upon those points which have now been so long in dispute, namely, the constitution and representation of the Council. The answers will then be submitted to the Government and, should there appear to be any decided call for a change, the matter will be acted upon by the next Parliament. The matter will be acted upon by the next Parliament. report also proposed that those practitioners who had neglected or refused to pay their annual assessments to the Council should continue to exercise their franchise should occasion arise the same as those who had paid their fees

New Civic Hospital for Montreal.—The Montreal City Council has at last, after long delay of many years, decided to erect a new Contagious Diseases Hos-pital. The question was brought up in Council last week by the reading of a letter addressed to that body by the Roman Catholic Dignitary, Archbishop Bruches. The new hospital will be erected on Fletcher's Field, will be for infectious diseases other than smallpox, the present Civic Hospital being kept for that purpose, will cost \$50,000, and will be strictly non-sectarian. The Catholic population of the city wanted two hospitals, one for themselves and one for the Protestants, but the City Council was almost unanimous for a non-sectarian institution. The Archbishop states he will not accept for his people a non-sectarian hospital.

Chances for the American Medical Students at McGill.-According to a circular letter recently issued by the Registrar of the Medical Faculty of McGill University, Dr. Ruttan, there are some sixty original vacancies in the United States Army, owing to extensions of the Army Medical Service system. These will be filled by competitive examination and Dr. Ruttan wishes that the American medical students at McGill be given a chance at these positions, as there are a number of students at that famous university who hail from the Republic to the south of us. It is understood that several of these will compete.

Victorian Order of Nurses.—In Ottawa last week the Board of Governors of the Victorian Order of Nurses held their annual meeting. The reports submitted showed that the most important work done in connection with the Order during the past year h been the collection of \$25,000, raised almost entirely by the efforts of Lady Minto alone, for the Lady Minto Cottage Hospital Fund. Of this sum some \$6,000 has already been spent on the construction of hospitals in the Canadian Northwest Territories, and a further sum of \$8,000 has been set apart for similar purposes. During the past year two new branches of the Order have been established, one at Pictou, N. S., and one at heavy the Marine Hospital Research when the Marine Hospital Research Processes and the Proces Dauphin, Man. In Pictou a wing of the Marine Hospital is now supplied with nursing service by the Victorian Order, whereas before no nursing was available. The financial report stated that there was some falling off in the endowment fund of \$2,500 which is collected

Tuberculosis in the Province of Quebec .- The Recorder of Vital Statistics for the Province of Quebec, Dr. Paul E. Prevost, states that in the year 1897 there were 3,079 deaths in that Province from tuberculosis; in 1898, 2,876; in 1899, 3,085; in 1900, 3,015. These figures show the death-rate from tuberculosis to be three times that of any other disease, except infantile diarrhea. There occurred in Montreal alone 791 deaths from consumption in 1900, which was 10.32 per cent. of the deaths from all causes. The whole subject of tuberculosis is to come up for discussion in the Legislature of the Province. A member of that body has asked that the Government produce all correspondence and documents in its possession bearing on tuberculosis, its prevalence, and treatment. Efforts will be made to secure financial aid for sanatoria the same as is provided for in other Provinces of the Dominion, namely, Ontario and Nova Scotia. Quebec Province has a good sanatorium, the Laurentian, but it does not receive any aid from the Provincial Government. This is situated at St. Agathe des Monts, a short distance from Montreal, and is superintended by Dr. Arthur J. Richer of that city.

Proposed Dominion Medical Council.-When Dr. Thos. G. Roddick, M.P., closed his address last week in the Canadian House of Commons, in moving the second reading of his bill for a Dominion Medical Council, he received the applause of both sides of the House. A member from Quebec objected to the second reading of the bill as he doubted the constitutionality of the measure, and some one also stated that Laval University was opposed to the principles of the bill. The Premier, Sir Wilfrid Laurier, stated that as Dr. Roddick had asked that the bill be referred to a special committee of the House after it had received its second reading, he would not then oppose it. This action of the Premier is considered in some quarters to be a hint that when the bill comes before the House for its final reading, he will instruct his followers to oppose it. If that be the case the long and arduous labors of Dr. Roddick in the cause of the medical profession in Canada will have proved futile. As the bill now stands it provides for a Council of thirty-nine members, as follows: Eight from the Province of Quebec, Laval University to have an additional College representative; nine from Ontario; four each from Manitoba and Nova Scotia; three each from New Brunswick, British Columbia and the Northwest Territories; two from Prince Edward Island; three from the Homeopathic body. The proposed bill has received the endorsation of all the Provincial medical societies and of the national medical organization, the Canadian Medical Association. Surely the Dominion Parliament has the power to elevate the medical profession of Canada and give it a national standing.

GENERAL.

Post-Graduate Study in Baltimore.—The College of Physicians and Surgeons of Baltimore has instituted a series of post-graduate courses in medicine, surgery, medical and surgical specialties and in laboratory work in pathology, bacteriology and pharmacology. This is a new departure for this institution.

Prophylaxis of Tuberculosis.—Among protective measures proposed by the Association for Defence against Tuberculosis in Milan is the general distribution of cards bearing the words "Do not expectorate upon the ground." It is also advised that such a placard be exposed in the churches.

German Surgical Congress.—The Thirty-first Congress of the German Society of Surgeons will be

held in Berlin, April 2-5, 1902.

The "Cleveland Medical Journal."—The first number of the union of the "Cleveland Medical Gazette" and the "Cleveland Journal of Medicine" has been received and we congratulate the profession of Cleveland on its splendid appearance. As an exponent of a united profession in the city of Cleveland it is also the more welcome to the ranks of high-class medical journalism. Long may it prosper and the principles of its incorporation prevail.

Harvard Medical School.—A gift of \$250,000 from Mrs. Collis P. Huntington, announced March 13th, more than completes the sum of \$765,000 required to secure the \$1,000,000 offered by John D. Rockefeller of New York for the enlargement and endowment of the Harvard Medical School. Mrs. Huntington's subscription is specifically for the erection of a building in mem-ory of her late husband, to be called the "Collis P. Huntington Laboratory of Pathology and Bacteriology." With Mr. Rockefeller's gift and the pledge made by J. P. Morgan last June to give three buildings at a cost exceeding \$1,000,000, an aggregate of \$2,821,225 will be available for the use of the Medical School.

National Health Board.—The bill to change the name and increase the efficiency of the United States Marine Hospital Service, favorably commented on pre-viously in the editorial columns of the MEDICAL NEWS, was favorably reported to the Senate by the Committee on Public Health and National Quarantine, March 15th. It changes the name to the United States Health Service. The bill provides for creating an Advisory Board for conducting investigations by the Hygienic Laboratory, and provides also for the creation of a National Board of Health, to consist of one delegate from each State or Territorial Board of Health, to meet for conference when upon the request of five of these boards the interests of the public health can be promoted thereby. The uniformity of registration of mortality, morbidity and vital statistics is provided for by au-thorizing the Surgeon-General of the United States Health Service after conference with the State boards to prescribe forms for their collection and compilation. In the time of threatened or actual war, when the com-missioned officers of the United States Health Service are brought into official relations with the medical offi cers of the Army or Navy, they are to have rank with and after those of similar rank in those services.

Obituary.-Dr. J. Baxter Upham died last week in New York, at his home, after an attack of indigestion. He had been ill for two days. He was eighty-two years old and was born in Claremont, N. H. He was graduated from Dartmouth College in 1842 and from the Harvard Medical School in 1848, practised medicine in Boston until the outbreak of the Civil War, and then enlisted to serve through the war as a surgeon-major under Gen. Burnside. After the war he resumed practice in Boston. In 1880 he came to New York and formed a copartnership with Austin Corbin in the Cor-bin Banking Company. Two years later he retired on account of ill health. He was a delegate to the Inter-

national Medical Congress.

New Buildings for Medical School.—The Columbian University of Washington, D. C., has just completed plans and let contracts for the erection of a new hospital building and a new medical and dental school on H Street, N. W., between 13th and 14th Streets. The buildings will be Colonial in style, the hospital having a frontage of 60 feet to the south; the medical school building, 50x144 feet, will be five stories high. Large new laboratories thoroughly equipped for mod-ern work and well-lighted lecture- and reading-rooms will afford excellent facilities for medical and dental

CORRESPONDENCE.

CURABILITY OF TUBERCULOSIS.

To the Editor of the MEDICAL NEWS

DEAR SIR:-Major D. M. Appel, U.S.A., the Commanding Officer of the Government Sanatorium for Tuberculosis at Fort Bayard, New Mexico, has been widely quoted in the lay press as saying, in an interview with a newspaper representative at Albuquerque, New Mexico, that "tuberculosis is curable in every stage." If true, this statement is fraught with the greatest interest to the human race; if not, the error should be at once corrected. If Major Appel has been rightly quoted, and the words "you may quote me," which precede his statement, would indicate that he has, then, unquestionably, he spoke in good faith. It is far from my purpose to attribute to Major Appel an intention to mislead or equivocate, but that his utterance is misleading, I am thoroughly convinced; and that it requires explanation and qualification, I am also convinced. No one realizes more keenly than I the efficacy of the climate of New Mexico in tuberculosis, and I am sure that nothing but the truth is necessary to substantiate New Mexico's claims. Let us suppose that a patient, in a late stage of tuberculosis, lying in his bed in St. Luke's Hospital in New York, has his attention directed to the issue of the New York Herald in which one whose position lends authority to his words gives utterance to the statement that "tuberculosis is curable in every stage." Such a one receives renewed hope. He is possessed by the idea that he may, after all, recover; and, if it can in any way be managed, he will make his way to New Mexico, seeking the lifegiving conditions which this statement justifies him in expecting to find there. Will he be disappointed? My whole experience says that he will; and that, in the ma-jority of cases, such patients will die far from home and friends. It is in just such cases as this that such a statement may do incalculable harm.

We, most of us, remember the enormous influx of tuberculous invalids into Berlin which followed the premature announcement of Koch's tuberculin. They went as to a Mecca, where human ills and pains were sure to be assuaged. Were they disappointed? We all know the answer to that question. Is there to be a like immigration of incurable sufferers into New Mexico? I trust not. And, in a measure, to prevent such an occurrence, I feel it my duty to urge that Major Appel's statement be not taken literally, and to add my own interpretation of what I believe to be the facts. If called upon for an opinion as to the curability of tuberculosis in our climate, I should not hesitate to say that here, by rigid adherence to the phthisiotherapeutic principles of Brehmer, results can be obtained which are unsurpassed and which prove a revelation to the phthisiotherapist who works in an unfavorable climatic environment. And, further, that more patients in the so-called advanced stages of consumption recover

here, at least relative health, than anywhere else; but the statement that tuberculosis is curable in every stage is not substantiated by facts. From this, it should not be implied that a patient in an advanced stage is necessarily incurable. I have before me the first annual report, made by Major Appel of the Government Sanstorium at Fort Bayard, in which, under the head of "Cases Presenting Permanent Febrility with Tubercle Bacilli in the Sputum," he says: "Of the forty-eight patients in this class, twenty-four, or 50 per cent, died; twenty, or 42 per cent., were discharged unimproved; and four, or 8 per cent., improved in general condition. None was cured or discharged convalescent." Of this same class, fourteen patients were under treatment at the time this report was written. Their conditions at that time, according to the report, were as follows: "Nine, or 64 per cent., are unimproved; four, or 28 per cent., improved in general condition; and one is convalescent." Under the head of conclusions regarding discharged cases of this type, is the following: "With a death-record of 50 per cent. and a hopeless prognosis in the remainder, the futility of climatic treatment for this class is unquestionable."

The foregoing quotations and the statement "that tu-berculosis is curable in every stage" cannot be recon-ciled, and it would appear that the recent, widely-quoted to do great harm.

E. S. BULLOCK, statement of Major Appel is misleading and calculated

Medical Director, St. Joseph's Sanatorium.

Silver City, New Mexico, March 8, 1902.

TRANSACTIONS OF FOREIGN SOCIETIES. British.

OBESITY-OLD STANDING PARALYSIS-DYSENTERY-MAM-MARY CANCER—PAPILLOMA OF THE VAGINA—VACCINIA.

THE month of January saw the British Societies very active. Among the many valuable discussions held the

following are worthy of attention.

T. LAUDER BRUNTON opened a discussion on the na-ture and treatment of obesity, which he defined as a condition in which the fat is very much greater than normal and sufficient in quantity to become inconvenient to the patient. His definition was made accurate and illustrated by the following facts. The average height of the English is five feet eight inches, and weight one hundred and fifty-four pounds, remaining constant until about the fortieth year, when a gradual increase in weight begins. According to Van Noorden this increase might reach 15 per cent. and still remain within what should be called the normal limit. If it reached 30 per cent. the person became "stout," between 30 and 35 per cent. "too stout," from 35 to 50 per cent. "moderately obese," above 50 per cent. "very obese." The accumulation of fat occurred usually in the subcutaneous tissue, omentum, around the heart and kid-neys, consisted chiefly of mixtures of different proportions of glycerin, united with fatty acids. These mixtures vary in different animals, but each animal keeps its own fat nearly at a constant standard, although it might feed on other animals having a different kind of fat. This not altogether the case. As an old nurse of S. Weir Mitchell has remarked, some fats are fast, some fats are fleeting, but cod-liver oil fat is soon wasted. This has been proved scientifically, for in animals fed on rape-seed oil, this oil can be detected unaltered in the tissues. The accumulation of fat in man depends first on how much fat or fat-forming food is taken into the body, and second upon how much food is consumed in the ordinary processes of life. Either

of these causes may act separately or both together. Fat is, however, formed from different kinds of foodeven if fat itself is not contained in them, such as the albuminoids, and carbohydrates. The body is able to albuminoids, and carbonydrates. The body is able to make food with difficulty from albuminoid materials, such as lean meat, but with considerable ease from the tendency to lay on fat is determined by the nature of the food. The tendency to the accumulation of fat both in men and animals after the removal of the testes and ovaries is well known. Loewy and Richter found that in dogs the administration of extract of the ovaries has no effect if these organs are in the body of the animal, but increases oxidation in animals from which the ovaries or the testicles have been removed. It is usual to distinguish two forms of obesity, the plethoric and the anemic. Instances are known in which plethoric obesity was benefited by violent exercise, which may or may not be accompanied by a peculiar diminution of the mental activity. Anemic obesity is most frequent in women. Diseases which lessen activity tend to cause obesity, especially chronic nephritis on account of the languor which it produces. With regard to the treatment of obesity, as the cause of the condition either in severe or slight form consists in taking in more fatmaking food than the body can burn off, the treatment naturally consists in limiting food, both in quantity and in quality, and in increasing the combustion by accelerating the circulation. Active muscular exercise is certainly the best means of carrying out the latter point, but in severe cases the patients cannot take muscular exercise. In these massage is exceedingly valuable, but is alone not sufficient and must precede rather than supplant active exercise. The amount of food should be lessened in general by insisting that solids and liquids should be taken at different times. Many are apt to wash down food, especially farinaceous food, without much chewing. If this starchy food were made dry, like toast, rusk, and biscuit, the quantity taken without the aid of fluid would be much less. Digestion in the stomach has less tendency to form fat than when the digestive process is carried on in the intestine. This gives a good index of the kind of food most suited to these patients. It is necessary to secure active elimination of the products of combustion. Thyroid extract increases tissue change and may be used to decrease obesity. But diet and exercise are safer and in the long run more reliable.

J. P. Stewart and Mr. Turser, at the Clinical Society of London, January 24, 1902, showed a case illustrating a new method of treating old-standing paralysis of the upper root of the brachial plexus. The patient was a man fifty-seven years old, who had fallen on his shoulder and head two years ago, with resulting unconsciousness for an hour afterward and paralysis of the left arm upon recovery. After treatment at various haspitals without benefit he was admitted to the Westminster Hospital under the care of W. Murrell, showing marked paralysis and atrophy of the left shoulder and upper arm, with total loss of electrical excitability in the deltoid, infraspinatus, biceps, brachialis anticus, and supinator longus muscles, with consequent inability to adduct the arm or to flex the elbow. There was loss of sensation along the outer side of the upper arm and forearm, which subsequently disappeared. These symptoms pointed to a paralysis of the upper root of the brachial plexus of the Erb-Duchenne type. Twenty months after the accident Mr. Tubby transferred part of the triceps and fixed it into the biceps, with the object of restoring the power of flexion at the elbow, and a month later an attempt was made to restore power to the deltoid. Since the operation the transplanted portions of the muscles have been assiduously massaged,

and the faradic current had been applied. There had been great improvement in the movements and in the utility of the limbs. The patient could flex the elbow fairly well and during this act the transplanted part of the triceps could be felt in front of the elbow and both faradic and galvanic excitability had returned. He had not yet recovered power to adduct the arm, but the transplanted part of the pectoralis major could also be felt to harden. At first there was a total loss of excitability both to induced and galvanic currents, but three months after the operation, the galvanic excitability returned and six months after, faradic reaction had become apparent.

had become apparent.

Dr. Washbourne read a paper at the Epidemiological Society January 17, 1902, in which O. Richards had taken a share in authorship. It dealt with South African dysentery and its relation to that in asylums. Three types of the disease were described, alike marked by bloody and mucous stools, fever, tenesmus, and abdominal pain in different degrees. The normal type, with its febrile stage, lasted a week with the temperature between 101° in the morning and 104° F. in the evening, with a thick white fur on the tongue, and with the symptoms subsiding in a week or becoming chronic, unless death occurred in the first week from the fever itself, or subsequently from the perforation, peritonitis, or exhaustion. The second type comprised mild nonfebrile cases soon recovering, and the third was distinguished by the pyrexia which continued for three or four weeks, with perhaps an entire absence of blood and mucus, the bowels being either loose or constipated. The cases were often taken for enteric fever, but were doubtless due, like the typhoid form of scarlet fever, to secondary septic invasion. The mortality in South Africa had been low. Only about 1.86 per cent. had died. Liver abscess was rare. In one case the base was full of streptococci and bacilli, thus differing from the usual tropical form. The cecum and rectum were most affected, the lesions being thickening of the walls with hemorrhages and ulceration. Perforation was the most frequent cause of death. No amebe had been found in the contents of the intestine or in the abscesses themselves.

R. J. M. BUCHANAN, at the Liverpool Medical Institution, January 23, 1902, referred to the subject of mammary cancer in the light of heredity on the one hand and of the parasitic theory on the other. In view of the transmission of minute details of conformation and disposition from parents to children in heredity, he thought it a proper consideration that the peculiarities of cell reproduction might also be transmitted, and that the characteristics of cell structure as seen in cancer growths might in some way be associated with stages in karyokinesis. He showed a specimen of tradescontia virginica, showing the various stages of cell division and drew attention to the fact that nuclei of many cells at a similar stage presented structures closely resembling cancer bodies. He referred to the variations of the centrosome in cell division and to the possibility that cancer bodies might be of centrosomic origin and expressive of an exaggerated or abnormal condition of the questrosome. The question of heredity transmission he considered applicable both to the developmental and parasitic theories. In the former as reproducing special peculiarities in the life histories of cells, in the latter as reproducing a light susceptibility in a high degree of parasitic invasion. Referring to the parasitic theory in relation to the etiology of cancer, he stated that his endeavors to cultivate the so-called parasite proved unsuccessful, and that he was not fully satisfied with the results of other observers in view of the grave possibilities of contamination and the lack of evidence that inoculations of organisms isolated from

cancer have reproduced this disease. This might be due to differences in experimental technic, and, apart from the purely experimental method to isolate and reproduce cancer by inoculation, he thought that some consideration should be given to the circumstantial evidence in favor of the parasitic theory as offered by records of geographical distribution, the existence of cancer houses and conditions of environment, associated with the occurrence of the disease. Relating to this, he did not accept the statement of Banks that a diet of flesh predisposes to cancer, but rather that a diet of raw vegetables tended to it. He felt that the parasite most probably is introduced into the body through the medium of some lower form of animal life which is in constant association with it and especially such vegetables as are used for food. On inquiry, in certain cases of cancer he had noted that the houses in which the affected individuals resided were infested with snails to a remarkable degree and in many cases the victims had been addicted to indulgence in salad as an article of diet.

DR. WALTER, at the North of England Obstetrical and Gynecological Society on January 17, 1902, reported a case of recurrence of papilloma of the vagina in an unmarried patient, thirty-seven years old, admitted to St. Mary's Hospital, Manchester, in August, 1899, complaining of bleeding from the vagina between her periods, which had continued off and on for several months back. Her general condition was good. The uterus and other pelvic organs were healthy. Inside of the vagina on the posterior wall was a small papilloma which bled readily. This was scraped away and the cautery applied freely to the base. On microscopical examination of the scrapings, the appearance of a simple papilloma with no sign of malignancy was shown. In November, 1898, the patient reentered the hospital as the papilloma had recurred. The cautery was again applied. The following year on two occasions similar treatment was necessary. In 1900 the patient was readmitted in June and in December. The patches were larger in size than formerly, but were still quite superficial and were free from any deep-seated attachment. The cautery was applied to the affected surface. Last year in March, July, October, and December, the patches had returned and were spreading upward on the posterior and left wall. In December it was found that infiltration into the perivaginal tissue on the posterior and left side had occurred since her previous visit. As the vagina was extremely narrow, the perineum was divided and the part was exposed to view. A patch of mucous membrane of the size of a shilling with a raised and granulating surface, together with a small growth nearly as large as a nut, was removed and the vagina was packed with gauze. The microscopical appearance of this growth was a fibrous and elastic tissue basement, containing a considerable number of cell nests.

E. J. McWeeney, at the Royal Academy of Medicine in Ireland, before the Section on Pathology, on January 10, 1902, read a paper on the cause of vaccinia. He said that since the work of Von Thieme, Ceely, Voigt, and Fisher, there could be no doubt that vaccinia was merely smallpox modified by passage through the calf. The microscopical etiology of both diseases must therefore be the same. Since the commencement of the bacteriological epic repeated and unsuccessful endeavors had been made to establish a bacterial etiology of these maladies. Among the most recent of these attempts might be cited those of Klein, Copeman, Kent, Nakanishi, Czaplewski, and Vanselow. Mann had demonstrated that in sections of vaccine, tissue appearances closely resembling micro-organisms, but really consisting of granular or rod-like precipitates of stain, might be produced in the process of carrying out Gram's

method. The bacillus of Nakms was at once recognizable by any one familiar with the microbes of the calf's skin, such as the xerosis bacillus. It closely resembles that of diphtheria, but is harmless. Similarly the micrococcus quadrigeminous of the last-named observers had been recently admitted by themselves to be devoid of all etiologicial relation to the vaccine process. The attempts to prove that variola and vaccinia were due to a parasitic protozon were begun in 1886 by Vander Loeff, continued by L. Pfeiffer of Weimar, and still further developed by Guarnieri of Piesa, and by Pfeiffer's pupil, Wasielewsky. To Guarnieri belongs the credit of having selected as the field of observation the rabbit's cornea, a transparent, non-vascular structure, in which the histiological events could be observed uncomplicated by the vascular and exudative phenomenon of inflammation. He saw in epithelial cells of the inoculated cornea rounded bodies varying in size from that of a minute coccus to about one-third of the epithelial nucleus. They lay in the protoplasm, often close to and even uniting the nucleus. Ameboid movements were observable on the worm stage and E. Pfeiffer saw bodies lying between the epithelial cells an hour after vaccination and within them a few hours later. Several observers, such as Ferroni, Massari, Salmon, and others, had endeavored to explain these bodies as resulting from irritation of the non-specific kind, but Huckel while not admitting their parasitic nature had been led to infer that they were the result of some alteration of the cell produced by the parasite or its toxin. E. Pfeiffer had shown that lymph that had lost its activity through filtration or otherwise was incapable of pro-ducing these bodies in the cornea. Wasielewsky had propagated the vaccine virus on the rabbit's cornea for forty-three generations, and used the corneal epithelium scraped off the forty-third consecutive rabbit for vaccinating children and had produced a large percentage of typical vaccinations. The only feature presented by such virulent epithelium and not presented under any circumstances by normal or otherwise rooted epithelium was the presence of these bodies described by Guarnieri. For this reason it was difficult to escape the conclusion that the bodies were the carriers of the infection. Beyond the seeming existence of a nucleus, the most careful examination had failed to reveal much structure in the bodies as are found in the affected epithelium and as to their reproduction and developmental cycle little or nothing is known. The paper closes by showing the several stages in the evolution of the vaccine vessel, illustrated by lantern slides and actual preparations; the author also exhibited slides and sections of the inocculated rabbit's cornea, in which every cell was seen to harbor one or more of these bodies.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Held February 20, 1902.

The Second Vice-President, Charles L. Dana, M.D., in the Chair.

THE scientific business of the evening consisted of a Symposium on Vaccination.

Health Department and Smallpox.—Dr. Alonzo Blauvelt said that the announcement of a smallpox case comes to the New York Board of Health either from a physician or a citizen, by telephone or by mail, or through anonymous letters, reporting supposed cases, which are always investigated, but very rarely prove to have basis in fact. When the message is received the sergeant of the police station in the district in which

the patient resides is asked to send a policeman to tch the premises and to accompany the diagnostician of the Board of Health when he arrives. If the diagnostician finds the patient suffering from smallpox, he visits all the other rooms of the house, vaccinating every one besides looking for other cases. Careful inquiries are made as to all those who have been in contact with the patient, and as far as possible they are vaccinated. The diagnostician takes note of all articles in the room or in use by the sick person and these are fumigated by the Board of Health which sends a wagon for them; after twenty-four hours they are returned in another wagon. A week later inquiries are made as to the condition of the persons vaccinated and in cases in which the vaccine material has not successfully taken, revaccination is offered. All school-children living in the house are kept from school for three weeks, as are also teachers. School-books in the house are destroyed if the superintendent of the school makes a request to that effect. Vaccination is offered to all in the immediate neighborhood of the patient and these cases are further investigated in order to be sure that the virus has had its protective effect. A patient suffering from smallpox in any stage is at once removed by ambulance or coupé to Riverside Hospital on North Brother Island. After use for the transfer of a case of smallpox the ambulance or coupé is thoroughly fumigated by formaldehyde gas in a room specially arranged for this purpose. No exceptions are made to this rule of removal, no matter what the circumstances

of the patient. Dry Points versus Glycerinated Virus.-Dr. M. J. Rosenau, Director of the Hygienic Laboratory of the Marine Hospital Service at Washington, read a paper on the bacteriology of dry points and glycerinated virus. He said that bovine virus has the advantage of not containing human diseases, hence its general use; bovine virus may, however, carry pus cocci and other undesirable micro-organisms, and the greatest care is needed to protect human beings against this injurious inoculation. In 1891 Dr. Monckton Copeland of London showed that glycerin inhibited the growth of all micro-organisms associated with vaccine virus and destroyed most of them. Glycerin is not an antiseptic, but it slowly kills by dehydration. Diluted glycerin-may be a culture medium for micro-organisms. Glycerin also eventually destroys the power of vaccine virus, but this occurs later than the death of the microorganisms hence the special effect of the use of glycerin. Glycerin should be added to virus from four to six eks before it is used. Dr. Rosenau made his observations on dry points and glycerinated virus bought in the open market and kept under proper conditions of air and light. Forty-one dry points showed an average of over 4,000 microbes on each point. Forty-one samples of slycerinated virus showed an average of 2,800 microbes n each sample. This is entirely too many, considering the normal bactercidal efficiency of glycerin. Some of the micro-organisms found in the glycerinated virus were the ordinary pus cocoi and the mircrobes of hem-orrhagic septicemia. While all these developed in bouillon, they were found to be without virulence for the ordinary laboratory animals and apparently had lost some of their normal activity. The presence of so many micro-organisms in glycerinated virus seems to ow that manufacturers put on the market green virus that is, vaccine virus mixed with glycerin only a few type before delivery for use. When glycerinated virus was kept for five or six weeks at the laboratory the maker of micro-organisms fell in most cases to less as 200 per sample. This seems to be an absolute dem-mentation of the necessity for longer contact of the us with the glycerin.

Dangers of Glycerinated Virus.—One of the speci-mens of glycerinated virus examined contained molds and other micro-organisms, indicating stable contamination, which points out the danger that may occur from over confidence in the efficiency of glycerin in destroy-ing micro-organisms. The strictest precautions should be taken to prevent the contamination of vaccine ma-terial; manufacturers must not depend on the destructive power of the glycerin and practise economy by less-ening their antiseptic precautions. The glycerinated virus of one manufacturer contained more micro-organisms than the dry points manufactured by the same firm. Dry points, when kept for some time also have fewer micro-organisms, the drying process causing bacteria to lose their vitality. One reason for difference in the number of micro-organisms in certain cases is that the tubes containing the glycerinated virus vary greatly in size. Some of them contain ten times as much as others. The quality of the micro-organisms, and especially the frequent presence of pus cocci and of microbes of the hemorrhagic septicemia variety, evidentally show the need for proper control. The enforcement of government inspection with power to prevent the sale of improper material seems to be the desideratum

Clinical Comparison.—Dr. F. S. Fielder read a paper on the value of the dry points compared with that of glycerinated virus in the actual practice of vaccination. Dr. Fielder made a series of clinical tests in connections with the laboratories of the Board of Health of New York City. From twenty-one calves dry points and glycerinated virus were prepared which were tested on primary vaccination cases. Ten chil-dren were vaccinated in three places, there being fifteen insertions each of dry point and the glycerinated vaccine material. Each child was inspected six or seven days after vaccination in order to determine whether vaccination had taken or not, and three or four days later to determine the constitutional reaction, rashes and so forth, that might occur. The glycerinated virus was successful in 95 per cent. of the insertions; the dry points in only about half the cases. The quality of the resulting vesicles was very much better with glycerinated virus than with the dry point. The failure of the latter seems to be that not so much of the base of the vaccine vesicle in which the vaccine bearing bodies reside is obtained on the surface of the dry point as in the glycerin emulsion. It is the presence of these apparently protozoic bodies that makes the vaccine material effi-cient, and anything that secures a large number of them for vaccination purposes is sure to produce more uni-

Rashes and other Accessories.—There was somewhat more rash noted in cases vaccinated with the dry points than in those in which the glycerinated virus was used. As by the conditions of the experimental observation, however, the glycerinated virus employed was green—that is, inoculated within a few days of its preparation and without waiting the customary five or six weeks for the glycerin to effect its purpose of destroying attendant micro-organisms—it is not surprising that some rashes were noted with it. One rash resembled very much that of varicella, but as it occured four days after vaccination it was thought to be due to the vaccine virus. Such cases of varicella-like rash have been seen before; in this case, however, another child in the family developed a varicella-like rash two weeks later, though it had been vaccinated the previous year and the lesions ran the typical course of true varicella.

Tetanus and Vaccine Virus.—Dr. John H. Huddleston read a paper on the possible relations between tetanus and vaccine virus. Tetanus as a sequel of vaccination is rare and it has occurred indiscriminately after the use of dry points and glycerinated virus. The most careful investigation of a large series of cases shows that no case of tetanus ever developed at a time when according to the usual incubation period of tetanus, it would seem probable that both tetanus and vaccinia could be inoculated together. It is well known that tetanus bacilli occur in horse manure in considerable quantities. This is considered to be the principal

source of tetanus bacilli in large cities.

Cow-Manure and Tetanus.-It is not known by any definate set of experiments as yet published whether or not tetanus bacilli occur in the stools of cattle. Dr. Huddleston, in connection with his Board of Health work in New York, instituted a series of observations to determine the occurrence and non-occurrence of bacilli in calf-manure. Cultures were made from 25 samples of manure passed shortly after calves were admitted to the vaccine laboratory; these calves had been fed on hay on which is known that the tetanus bacillus occurs thus finding its way into the intestines of animals. Six of the twenty-five samples gave cultures of bacilli suspiciously resembling tetanus bacilli. Two of the micro-organisms thus found withstood a temperature F. for an hour. When injected into animals, these bacilli produced tetanic spasm, and two days after the animals died. With the idea of determining whether calves are susceptible to tetanus or not, tetanus bacilli were inoculated with cultures of the bacillus. In small amounts they failed to produce any reaction. Used in larger amounts and introduced by means of scarification they did not cause symptoms. Tetanus bacilli smeared over the teats of the animals from which vaccine matter were to be obtained penetrated to the bases of the vesicles and all of the vesicles gave serum from which cultures of spore-bearing anaerobic or-ganisms could be obtained. To the toxin of the tetanus, calves proved to be extremely insusceptible; after large quantities had been used without success, all the toxin in the laboratory was introduced into one calf, nearly a thousand c.c., and only then was there a fatal result.

Sealed Tubes and Tetanus Bacilli.—It has been said that the sale of vaccine virus in sealed tubes really favors the growth of tetanus bacilli, if any should by chance be present in the material; these sealed tubes are supposed to provide a favorable anaerobic location for the growth of the bacillus. In order to test this question, Dr. Huddleston inoculated bouillon and water with tetanus bacilli and then enclosed the contaminated material in sealed tubes. The tetanus bacilli multiplied very noticeably. When glycerin was added to the bouillon and water, however, there was no growth of the tetanus bacilli, though the sealed tubes were kept at the most favorable temperature for their growth for

many days.

Vaccine Matter and Tetanus.—Animals inoculated in the ordinary way with vaccine material known to be contaminated by tetanus bacilli did not contract the disease. Very susceptible animals as far as regards tetanus were used for these experiments and it is evident that tetanus is not easily transmitted by the scarification method, as might be expected from the well-known anaerobic character of the micro-organism. It refuses to grow in the presence of oxygen and superficial wounds are never a source of tetanus. Tetanus occurs by special preference after deep wounds, because then the bacillus becomes buried in the tissues far away from the free oxygen of the air. It is not surprising, then, that the Royal Commission appointed in England to investigate this subject reported only one case of post-vaccinal tetanus, even that not due to coin-

Exaggerated Claims for Glycerinated Virus.-Dr. Foster said that he is an opponent of the use of glycerin

in the preparation of vaccine virus. Exaggerate claims for the effect of glycerin on vaccine materi in the destruction of intruding micro-organisms have been made without sufficient reason. Dr. Foster con siders that Dr. Rosenau has approached the subject from a different and more rational standpoint from that usually assumed in the literature of this subject He is accustomed to hear it said that in glycerinated virus there can be no possible danger. Dr. Rosenau has shown that any danger that exists is quite any glycerinated virus as with dry points unless proper precautions are taken. The use of glycerin has been put neglect of many other needed precautions. Many of the glycerin preparations of vaccine virus on the market are. as has been shown by Dr. Rosenau, not what they are represented to be. Undoubtedly some of the bad results recently reported in vaccination cases have been due to the neglect of proper precautions in the preparation of this glycerinated virus.

Use of Dry Points.—Dr. Foster, who has had much experience in the preparation of dry points and in the use of vaccine material according to this method, says that in order to keep properly dry points should be subjected to artificial desiccation; drying of the most thorough kind at an ordinary temperature is not entirely efficient. When properly prepared, dry points present many features of excellence and are not superseded by glycerinated virus. Their satisfactory employment for long years by the profession, under all sorts of circumstances, makes an excellent practical

proof of their value.

Japanese Experience with Vaccine.-Dr. Kinyoun, Medical Inspector of Foreign Laboratories for the United States Marine Hospital Service, said that Kitasato, who is in charge of the Japanese government laboratories for the manufacture of vaccine virus, after a series of the most careful observations, has decided that glycerinated vaccine material should be exclusively employed. Dr. Kinyoun had seen in Japan a series of thirty-eight successful primary vaccinations done upon children. Sixty out of three hundred and sixty adults had been successfully vaccinated in a secondary vaccination. The comparatively few successful results are due to the fact that the Japanese as a nation are universally vaccinated in childhood and at intervals thereafter. The confidence of the Japanese in the protective power of their vaccination is such that no restraint is practised with regard to smallpox; there is no quarantine, and except in remote country districts, practically the whole nation is immune to smallpox from repeated vaccinations. Japan furnishes at the present time the best possible proof of the value of vaccination against smallpox.

Strength of Vaccine Material.—Dr. Kinyoun said that the first part of the lymph that comes from the vaccine vesicle contains more vaccine material than the subsequent fluid contains. Down in the pulp at the base of the vesicle the vaccine particles are contained and are gradually washed away by the issue of serum. Points made, then, from the later portion of the contents of the vesicle are apt not to be so successful in their effects. Dr. Kinyoun was associated with Dr. Monckton Copeland at the time of his researches on the use of glycerin, and his experience convines him that glycerinated virus properly prepared is greatly

superior to the dry point.

Manila Sore Arms.—The experience with vaccination at Manila has not been very satisfactory. For some reason the virus used there produces unto-ward results and extremely sore arms. The glycerisated virus does not seem to be free from micro-org

of the difficulties has been that owing to the temperature, the vaccine virus is used immediately, and so the glycerin has not its proper opportunity to destroy or greatly lessen the vitality of undesirable micro-organisms. In Japan the best results are obtained by the intimate division of the vaccine pulp, so that only minute portions of tissue are mixed with the glycerin; this enables the glycerin to reach every part of the vaccine material and helps it to produce its antiseptic effect much sooner than would otherwise be the case. The vaccine virus thus prepared does not last as long as other glycerinated virus, but its additional advantages more than compensate for this. The virus issued in Japan is supposed to be effective only for sixty days.

Filtered Lymph.—Dr. Jacobi asked if Dr. Huddleston had stated that filtered lymph was incapable of producing true vaccination. He said that in the old days physicians obtained their vaccine material by watching their cases very carefully and obtaining serum from vesicles when they were absolutely clear and as yet unclouded; this perfectly clear serum was well recognized to be the most effective vaccine material and to contain no undesirable qualities. This serum was collected on a series of ivory points or in a goose quill, the most important consideration being to avoid the pus stage of the vaccine vesicle because at this time the virus had deteriorated. This had also been the custom in the villages of Germany in which Dr. Jacobi had lived and there is no doubt of the efficiency of the vaccine performed with this perfectly clear material.

Filtered Vaccinal Serum.—Dr. Huddleston said that the serum of vaccine vesicles after filtration is absolutely inefficient. The reason for this is that the vaccine virus is contained on minute particles, which are, however, not small enough to pass through an ordinary filter. The dry particles filtered out of the serum may be used with success for vaccination purposes, but not the filtered serum. The clear serum found in vaccine vesicles contains, however, a certain number of particles that have been washed out of the pulp beneath, and these are canable of producing efficient vaccination.

these are capable of producing efficient vaccination.

Life of Vaccine Material.—While ordinary glycerinsted vaccine virus is not supposed to last more than two or three months, observations by the New York Board of Health show that the life of certain specimens is as long as thirty months after its original issue. Glycerin does not produce its action as an antiseptic merely by its drying power; even when diluted to 50 per cent. glycerin is still active in preserving vaccine virus and in destroying accessory micro-organisms. It is not its special affinity for water, but probably some chemical quality of the glycerin that gives it its bactericidal action.

Active Vaccine Bodies.—Dr. Rosenau, in closing the discussion, said that a series of observations made recently show that the bodies which produce the protective effect in vaccination have an especial affinity for epithelial tissue. These bodies have been grown upon the corneæ of animals and then transferred to other parts of other animals for vaccination purposes with success. In one set of observations the vaccine material was transferred forty-six times from cornea to cornea and still had its power of producing a typical vaccine vesicle. Some manufacturers use glycerinated virus not contained in sealed tubes, but on the ends of ivory or home points. This method of manufacture does not seem to have any very special advantages, though it is claimed that it inhibits the growth of anaerobic microorganisms better than when sealed in capillary tubes. He said that much remains as yet to be done in pointing ent the special dangers of vaccine material manufacfacture and that a large field lies open for the special worker in this line.

SOCIETY OF DERMATOLOGY AND GENITO-UEI-NARY SURGERY.

Stated Meeting, Held February 24, 1902.

The President, R. H. Greene, M.D., in the Chair.

A Case for Diagnosis.—Dr. H. H. Whitehouse presented the following case for diagnosis. The pa-tient, a man twenty-five years old, presented an eruption of eight months' duration. He had had a similar eruption five years ago but, at that time it was confined to the lower legs. He was treated by a noted dermatologist in Vienna, first with chrysarobin locally, and later, according to the patient, by injections twice a week with a "quick-silver" preparation. The erup-tion disappeared within five weeks. The family history is negative. He has had gonorrhea and considerable sore throat and headache, but nothing very definite. He denies chancre. The eruption is extensively dis-tributed over both legs, thighs and buttocks, with patches upon the arms and forearms; there are but few lesions upon the trunk except over the sacrum where the patches are numerous. Scalp, face, palms and soles are free and there are no lesions in the mouth. He complains of intense itching and burning symptoms which were present also in a marked degree during the first attack five years ago. The eruption consists of circinate spots made up of papules grouped into horseshoe or crescentic patches, forming gyrate figures. There is a marked solidity to the papules, the color of which is a dull red. Some papules are devoid of scales, while others have adherent dry silvery scales resembling very closely those of psoriasis. Some patches are clearing in the center and pigment spots are present at the site of former lesions. There is a

well marked postcervical and inguinal adenopathy.

Dr. James C. Johnson thought that two attacks, exactly of the same type, occurring five years apart, was sufficient to exclude syphilis. In old cases psoriasis, typical in its distribution, never entirely disappears; the fact that the eruption cleared up under mercurial treatment is not sufficient reason to exclude psoriasis.

Dr. Lapowski did not believe that it was syphilis, but that it was a case of psoriasis and seborrhea combined.

Dr. T. C. Lusk said many, for instance, Walker, claimed that psoriasis was but a form of seborrheic

Syphilitic Growth in the Perineum.—Dr. H. H. Morton presented this specimen which was taken from a patient who gave the following history: A. J., colored, about forty years old. Has had gonorrhea several times, his last attack occurring one year ago. He now appears entirely well. In October, 1900, he had a sore on his penis which lasted until March, 1901. This was followed by enlarged glands and sores in his mouth, which lasted for three or four months. His present attack began two months ago, with a swelling in the perineum which grew slowly larger and caused difficulty in urination. On December 30, 1901, an operation was performed. An external urethrotomy for a supposed abscess of Cowper's gland, or extravasation of urine was performed. The skin of the perineum was incised and a hard tumor lying over the urethra was exposed. This tumor lay nearly in the median line, but slightly to the left side. The tumor was split in half and the urethra exposed. There was a considerable amount of peri-urethral infiltration and thickening. A stricture of large caliber was divided. The tumor was dissected out with curved scissors and a large catheter introduced into the bladder for drainage. The wound was stitched, but left open. February 15th he had a beginning attack of acute articular rheumatism. Perineal wound had nearly closed.

Dr. Murray, the pathologist of Hoagland Laboratory, made the following report: "The microscopical examination of tumor removed from near urethra in patient at King's Hospital shows the mass to be composed of muscular, fibrous and areolar tissue, the whole being invaded by an enormous number of small round cells. There is, also, a very extensive obliterating en-darteritis and endophlebitis with perivascular small round-cell infiltration. A few cross-sections of ducts, apparently from mucous glands, are seen in parts of the mass. The growth has all the appearance of being syphilitic."

Dr. Cabot thought that it was an unique case and said it would have been interesting to have learned what the effect of treatment might have been upon a growth of that kind. He thought the growth came very soon after the primary lesion for a gumma.

Dr. Lusk said that it looked more like a keloid growth than a gummatous growth. The colored race were very prone to develop keloid and any kind of irritation seems to be followed by such a formation, especially in syphilitic patients.

Dr. Johnson said that the pathologist was very careful not to commit himself when he stated in his report "the growth has all the appearance of being syphilitic." He made his diagnosis chiefly upon the condition of the blood-vessels in that he stated that there was an extensive obliterating endarteritis and endophlebitis. He knew of no way by which a diagnosis could be made with the microscope between syphiloma and tuberculosis of the skin except by finding the tubercle bacilli. He thought the pathologist was perfectly right in stating that the condition was the result of previous in-jury and was syphilitic in character.

Hypertrophy of the Prostate.-Dr. H. H. Morton presented this specimen. The patient, F. B., a Finlander, by occupation a tailor, aged sixty-two years, had never been ill before his present sickness. His family history is negative. He has had a little trouble in passing his urine for one year past. He went to a physician to have some sounds passed and this the doctor was unable to do, but he did make a false passage in the posterior portion of the prostate; immediately after this accident the patient came to the hospital, being admitted on December 5, 1901. He was suffering from retention of urine and great distention of the bladder. It was impossible to pass any instrument into the bladder as all instruments went into the false passage. External urethrotomy without a guide was done. The finger introduced into the perineal opening showed an enormous enlargement of lateral lobes of the prostate and the entire prostate formed a ring around the vesical orifice. The bladder was drained through a large catheter for three weeks, but complete retention occurred as soon as the catheter was removed and so it was put back and left until January 10th when prostatectomy by the Alexander method was performed. The bladder was opened suprapubically and the perineal wound was used for shelling out the prostate from its capsule. There was no hemorrhage; the bladder was drained through the suprapubic wound and a perineal tube. January 13th: Bladder has been draining thoroughly through the tubes. Urine, from 40 to 60 ounces in twenty-four hours. Patient has shown no signs of shock, feels well, and is free from pain. Temperature ranges from 99 to 101° F. Patient has had urotropin; water to drink every two hours, the bladder has been washed out, and he has been turned from side to side every hour. The wounds look healthy. To-day he had a chill and rise of temperature to 104° F. January 14th: The temperature was subnormal, 96° F., but went up again and ranged from 98 to 101° F. till death. Patient grew

weaker and refused nourishment. Coarse râles were heard over the lungs posteriorly. The urinary secretion was free. The abdominal wound looked gangrenous, although the skin was united. January 19th: Patient died. Autopsy: The suprapubic wound was infected and a sloughing, rotten cavity, which extended as high as the umbilicus, was found between the skin and the transversalis fascia. There was a well-marked septic hypostatic pneumonia of the left lung. The kidneys showed a chronic diffuse nephritis, with secondary septic infection. The bladder was soft and necrotic and contracted. The cavity of the capsule of the prostate was not much affected, although no signs of repair were present. The perineal wound was soft and necrotic. The cause of death was septic absorption, chiefly from the suprapubic wound. Evidences of the infection appeared three days after the operation. The question arose, Was the patient infected during the operation (open wound in the perineum from perineal section present) or was he infected by his own urine (the urine was at no time very foul nor did it contain large quantities of pus)? The patient would probably have recovered if he had not become infected, although the laceration of the urethra was considerable in extent. The wound looked clean and the tabs of mucous membrane would have grown fast to the floor of the urethra or else would have sloughed off; the floor of the bladder was intact, the drainage perfect, and but very little urine came in contact with the wound in the prostate.

Results of the Bottini Operation.—Dr. H. H. Morton presented a specimen showing the results of the Bottini operation. The patient, J. M., seventy-eight years old, a painter by occupation, entered the hospital December 9, 1901. He has been unable to urinate naturally for a year past, and complains of a frequent desire to pass water and an inability to perform the act; he also has a good deal of tenesmus. Upon entering the hospital the patient could only pass from one to two drams of urine at infrequent intervals and practically had complete retention. The catheter introduced into the bladder drew off twenty-four ounces of residual urine. Per rectum the prostate appeared to be 11/2 to 2 inches in diameter and hard. The cystoscope showed an enlargement of the middle lobe and a trabeculated bladder. The urine was found to be acid, cloudy, with a specific gravity of 1016. Slight sediment; pus cells present; no casts. December 17, 1901. Bottini's operation was performed.

No general anesthetic was used, but cocaine was injected into the urethra and the patient did not complain much of pain. After the operation he had to be catheterized twice a day for the first two or three days. Then he began to pass water and the catheter was used only in the morning, withdrawing eight ounces of resid-ual urine. December 28th: Catheter used now once a day and withdraws from three to four ounces of residual urine. Passes water every hour during the day and five times at night. He is slow in starting the stream, requiring from five to ten minutes, yet he ejects a small stream with a good deal of force and some pain. January 18th: Urinates now six times daily and four times at night and passes a better stream than before the operation. Cystoscopic examination shows the middle lobe of the prostate with a cleft in the mid-

dle made by the Bottini operation.

February 10th: Patient has been up and about the ward and feeling comfortable until a week ago when he began to fail and died to-day probably from chronic cystitis and uremic fever. Complete autopsy not permitted. Autopsy: Bladder is black inside and contains a small quantity of thick foul pus. Many small necrotic areas, 1/2 inch in diameter, scattered about on the surface. Numerous small sacculi, ¼ inch deep, one containing a small calculus. Traces of Bottini operation shown as follows: Necrotic areas at interureteric fold. Blade must have caught here and knife burned a superficial incision through interureteric fold. Middle lobe of prostate cleft in halves and necrotic area at apex of each half I inch in length and ½ inch wide. The left lateral incision visible as a cut lying to the left side. Knife missed splitting prostate (handle of instrument must have been elevated too much) and stripped bladder mucous membrane off surface of prostate. The anterior cut evidently not made at all. Knife

simply moved backward in the urethra.

Bladder in bad condition prior to operation; cystitis was evidently made worse and was probably the cause of death. The middle lobe of the prostate was divided; the reduction in its size apparently occurred from the sloughing of the burned areas at the apices. It is probable that the operation proves curative through the contraction of the cicatrices following this sloug ing. The difficulty of placing the instrument in the proper position, without seeing, is shown by the fact that the left lateral incision was made incorrectly, the anterior incision not made at all, and that during the posterior incision the beak of the instrument was too far in the bladder and burned through the interureteric bar, which, as it happened, did no harm but was unnecessary. Death occurred seven weeks after the operation. The patient's retention of urine, which was complete, was almost entirely relieved and if he had left the hospital a few weeks earlier, as he was perfectly able to do (he was kept in the ward because he needed bladder washing and because he had no home), he would have been entered on the statistics as cured. The autopsy showed that the curative result was brought about through the effect of one incision.

Dr. F. Cabot said that the Society owed a debt of gratitude to Dr. Morton for reporting the cases he had lost, for often more is learned from such reports than from reports of successful results. With regard to the Bottini method, he believed it to be unsurgical; the fact that one was not able to see just what one was doing damned the operation in his eyes. He believed that although good results came from the sloughing, others occurred later on through cicatrization or through the shriveling of the prostate as the result of the cicatrix. He called attention to the fact that the case might have been placed on record as a successful case and said that this gave food for thought.

Dr. Bierhoff said that the case was particularly interesting to him because he had of late been thinking over the question, not as to what were the indications for a radical operation, but as to what were the contraindications. One often hears reports of the cases operated upon radically, but seldom does one get reports of the condition of the other organs prior to operation. In Dr. Morton's second case he did not refer to any signs pointing to involvement of the kidney; in the first case he did. Personally he believed that pyelonephritis or nephritis was a contraindication for operation. He thought that these cases did better if some palliative treatment were used; often, when indications for radical operation were present, the applica-tion of some form of palliative treatment caused an aprovement in the kidney condition. He believed that e existence of degenerative renal changes forms a distinct contraindication. Working in the dark had been practically done away with. He referred to certain instruments, those of Wossidlo of Berlin and those of Freudenberg and Bierhoff, which can be used under the guidance of the eye. These cannot be used in every case, unfortunately. There is going on abroad quite a discussion as to the technic of the Bottini operation—whether the finger ought to make counterpressure, etc. He thought that, before the current was turned on or the knife drawn from its sheath, one should satisfy one's self with the finger in the patient's rectum, that the point of the instrument is really behind the prostate and is distinctly to be felt here. He said that Freudenberg laid particular stress upon the point that the beak of the instrument should press firmly against the part to be cut; if that be done and if the beak of the instrument be situated directly behind the prostate and could be distinctly felt through the rectal wall, hooking firmly against the prostate, there would be no slipping away of the beak and one ought not to cut other than the prostatic tissues.

Concerning the belief that filling the bladder with

Concerning the belief that filling the bladder with some clear fluid would interfere with the heat of the knife, he would say that he always fills the bladder with boric-acid solution, and he has never found that it interfered with the heating of the knife, provided one hooks the beak of the instrument firmly against

the prostate.

Dr. McGowan said that what most impressed him was the fact that the Bottini operation was inexact. He preferred enucleation rather than cutting.

Dr. Hotchkiss asked Dr. Morton if he knew that the median lobe had been left in doing the Alexander operation.

Dr. Morton replied that he did not attempt to remove it.

Dr. Hotchkiss asked if he could reach it with his finger.

Dr. Morton replied that he could, and that it was found to be quite small.

Dr. Swinburne asked whether, if the bladder was distended with air instead of water, the air would escape on account of the manner in which the instrument was heated.

Dr. Cabot said that he believed that the Bottini and other methods should be superseded by the method Dr. Fuller was now using, the suprapubic method, which enables one to get good drainage. One of the most serious objections to the Bottini method he considered to be imperfect drainage. In his operation the suprapubic and perineal tubes are left in position for some time and the granulation tissue was not disturbed. This washing out of the bladder corrected the cystitis.

Dr. Greene said he now had a case in the Workhouse Hospital, a man with a suprapubic fistula, who had no control over the sphincter muscles, and who urinated continually during the day. As soon as any urine gets into the bladder it dribbles out through the urethra. To remedy the suprapubic fistula a catheter was introduced; but still the urine dribbled out along the sides of the catheter, and whenever the patient assumed the reclining position the urine appeared through the suprapubic opening. This showed how difficult it was to keep the bladder thoroughly drained in cases of suprapubic cystotomy. Apparently, if the patient could be kept in the semi-upright position better drainage could be had.

Dr. Bierhoff referred to the statistics published in 1900 by Freudenberg regarding the success of the Bottini operation. The latter did not call a case cured that was not seen some months after operation, or who had ever so little residual urine, or who relied upon a catheter; in other words, the function must be restored and the cystitis cured before the patient was considered cured. The deaths reported were about 434 to 536 per cent.; the cures were over 55 per cent. The ages of the patients had frequently been over seventy. The speaker had assisted Dr. Freudenberg in operating

upon a patient sixty-nine years old.

Dr. Greene referred to bladder insufficiency owing to atrophy of the bladder muscles in cases that were operated upon for hypertrophied prostate, and said he

did not see how such cases could be cured.

Dr. Lapowski asked if Dr. Bierhoff would operate in cases in which the bladder was infected and in which a purulent discharge and streptococci were present.

Dr. Bierhoff replied that he would not operate until

the bladder had first been treated. Dr. Morton agreed with the points brought out by Dr. Bierhoff. He thought it was a great mistake to operate upon a patient who was suffering from advanced renal disease. In every case of prostatectomy he examined the urine before operation to see that the kidneys were not badly affected. Such an examination was made in the case reported and but a little albumin and a few casts were found, showing but a slight nephritis; after the operation the patient passed from 50 to 60 ounces of urine, showing that the kidneys were not badly damaged. At the autopsy the kidneys were shown to be diseased but it was caused by an acute sepsis. He thought the point made of placing the finger in the rectum a valuable one. He always endeavored to hook the beak of the instrument before beginning to cut. He acknowledged that he could not always tell exactly where the beak was. In reference to Dr. McGowan's remarks regarding the Bottini operation not being exact, he asked what was to be done in cases in which there are complete retention and a hard fibrous prostate which demand relief. Perineal drainage in such cases is not of much value; one cannot enucleate the prostate and so Bottini's operation seems to answer the purpose in these particular cases. He had never tried filling the bladder with air, as suggested by Dr. Swinburne; it seemed to him that the air would escape. If a rubber band was tied about the penis that might prevent the escape of air, but it would interfere with the manipulation of the instrument. Dr. Morton thought it was necessary to sew the tubes in to prevent their shifting and that this made a perfect drainage by running water through them. He had found that in nearly every case in which a little cystitis was present the Bottini operation made the cystitis worse and, in one case, perineal section, with drainage for two months, was necessitated. He did not believe that one should consider the Bottini at any time as a light or trivial operation, because the mortality-rate is higher than is generally thought. He

patient dry after a suprapubic cystotomy. A New Irrigating Pan.-Dr. Swinburne showed a new irrigating pan to be used by the patient while sitting on the edge of the bed or on a chair.

acknowledged that it is a difficult matter to keep the

Dilating Bladder with Air Prior to Using the Lewis Cystoscope.—Dr. Swinburne said there was no difficulty was experienced in keeping air within the bladder; the only difficulty was that in the majority of cases considerable pain was caused, a sort of "blad-der colic" being produced.

SOCIETY OF ALUMNI OF BELLEVUE HOSPITAL. Stated Meeting, Held February 5, 1902.

The President, Alexander Lambert, M.D., in the Chair. Report of a Case of Removal of the Gasserian Ganglion.—Dr. John F. Erdmann presented a report of an operation done after the Krause-Hartley method on a patient sent to him on June 7, 1900. At the age of fourteen years the patient had developed, after a traumatism, a marked hunchback, and since then he had suffered from asthma. At the age of forty-one while wiping his face, he felt a sharp pain in the region

of the right ear, but it had disappeared and not returned for one year, when it had recurred under the same circumstances, and was so severe that he sought advice from a dentist and from a surgeon. The latter resected and excised Meckel's ganglion. Subsequently the pain became much more frequent and severe. All the usual local measures had been tried without relief. When first seen by Dr. Erdmann he was using three-quarters of a grain of morphine daily. June 30, 1900, he was placed upon a thorough course of iodide, but by July 30th the patient begged for operation as the pain was more severe and he was emaciating rapidly. On July 31st, under chloroform and ether, he was operated upon by the method of Hartley-Krause. There was troublesome venous hemorrhage during the operation, but finally the ganglion and its middle and inferior branches were removed. A small rubber drain was inserted. The temperature range was so peculiar that on the second or third day he was tempted to open the wound. The result of this was negative, and the same thing occurred a few days later. No opium or morphine was given after the operation until the eighth day and this probably explained the occurrence of some delirium. He was discharged at the end of the third week with a marked increase in weight, an excellent appetite, and free from pain; the opium habit was practically cured within three months. On January 4, 1902, the man had been deeply shocked by the death of his wife, and three days later he awakened to find himself slightly paralyzed on the left side. Since the operation there had been no pain and absolutely no eye symptoms. The speaker said that in the case previously reported by him in 1899 the patient had had absolutely no pain since that time. In quite an extensive report by Dr. Tiffany of Baltimore mention was made of the fact that in many cases disturbance of the temperature followed the removal of the ganglion. In his first case there had been some disturbance of the temperature, but it had not been so marked as in the second case. As far as the removal of the osseous portion of the flap was concerned, he did not think it made any difference because the flap became very thick and dense. He had removed it also and the patient had done well. Dr. Tiffany stated that he removed the osseous flap in all of his cases, simply leaving the periosteum, and that the patients did per-

fectly well.

Dr. Irving 6. Haynes said that a case of this kind had been shown at the New York Surgical Society some years after the operation; there was very decided de-pression of the skull at the site of the operation. It seemed not improbable that there would be greater liability to pressure on the brain by leaving the bone than by removing it.

Importance of a Course of Laboratory Physics in the Study of Medicine.—Mr. M. C. Trowbridge said that he had written to about thirty-five medical institutions asking for information regarding the instruction given in physics. Answers had been received from thirty, and only three gave a laboratory course in physics. These three were the Barnes Medical College, physics. These three were the Barnes Medical College, Mo., Dartmouth College, N. H., and the Medical Department of the University of Virginia. To these should be added the College of Physicians and Surgeons, Columbia University, New York. In physics, laboratory work should be an organic part of a systematic course, consisting of lectures, demonstrations by the lecturer and qualitative and quantitative work by the students themselves. Such a course had been given for a number of years at the College of Physicians and Surgeons, New York, the laboratory portion being under his own charge. Each student was provided at the commencement of the term with a course list, in which were enumerated the experiments to be list, in which were enumerated the experiments to be

The notes taken should be a synopsis of the work performed, and should be accompanied by dia-Each student performs twenty-five experiments, twenty of which are prescribed for him. Approximately 160 students took the laboratory course each year; ence the class was divided into four sections. Twentyfive experiments were performed in thirty-six hours, yet the students did perfectly satisfactory work. To each experiment was assigned a table, and the apparatus was kept there constantly in readiness. There was about one instructor to ten students. The general utility of the course was apparent because of the intimate re-lation of physics to medicine, to say nothing of the general value of such laboratory training. The experiments showed (1) the necessity of working with method and deliberation; (2) the value of precision; (3) the necessity for taking every factor of an experiment into consideration; (4) the liability to make mistakes in manipulation, and (5) the errors in the apparatus and in the experimenter. As many physical instruments were used in medicine, the practical value of such a course was obvious. Thus, the thermometer, the spirometer, the cyrtometer, the microscope and the spectro-scope were used in medical work. The applications of electricity in medicine were increasing daily. Electricity was used for cauterization, the removal of tumors by electrolysis, for the illumination of cavities of the body, and for the production of the X-rays. The student became familiar in the laboratory course with batteries, galvanometers and switch-keys. In 1899 twenty-six medical colleges required a total of 4,000 hours of study before graduation in medicine, so that the laboratory course just described, which only occupied thirty-six hours, could not be said to be very time-consuming.

Etiological Classification of Varicose Veins of the

Legs.—Dr. William S. Terriberry said that pathologically stricture of a valve caused (1) circular dilatation; (2) dilatation, with an actual lengthening of the affected vessel and considerable change in the walls and valves; (3) circumscribed fusiform dilatations of a portion of the diameter of the vein, forming an aneurismal sac, and (4) a number of dilated veins with aneurismal sacs in close proximity to become adherent. These different conditions might be regarded as successive stages of the process. The liability to thrombosis was greatest at the angles or pockets, or where the amount of motion was the greatest. The throm-bosis was checked, according to Bennett, at the valves rather than at the nearest branch. Trendelenburg, basing his deductions upon experiments on varix of the internal saphenous vein, claimed that varicose veins were dependent upon regurgitation through the valves of the internal saphenous, with excess of pressure from above downward, there being a column of blood extending from the diaphragm to the saphenous opening without any supporting valves. Trendelenburg believed that every case of varicosity of the superficial veins was caused by regurgitation by gravity through the more or less incompetent valves of the saphenous veins but in the calculated To Tourist and the saphenous veins but in the calculated Tourist and the saphenous veins but in the calculated Tourist and the saphenous veins but in the calculated Tourist and the saphenous veins but in the calculated Tourist and the saphenous opening without any supporting valves. veins, but in the opinion of Dr. Terriberry gravity had been blamed too much. The column of venous blood ascending was supported by the transmitted power of the heart's action at whatever level. So long as the propelling force was able to overcome gravity and drive the blood onward, the venous valves would not be called upon to act; but when there was obstruction, dilatation was caused primarily by the heart's action and by gravity secondarily.

If this obstruction became permanent, the vein would in time become permanently dilated and the valves incompetent. When there was stenosis above the saphenous valve, it was due either to actual narrowing of the lumen of the superior vessels or to increase of the intra-abdominal pressure. In another class of cases following obstruction from constriction, thrombosis or obliteration of a large number of veins inferior to the saphenous valve, there resulted regurgitation through the saphenous valves. There being a limit to the distensibility of the walls of the vein, an increase in the speed must of necessity follow. There was a third class of cases caused by obstruction of veins as a result of thrombosis or local constriction. Such cases were due to small anastomosing connections of the deep veins. There were, then, three groups of cases, viz., (1) those due to regurgitation following stenosis above the saphenous valve; (2) those due to regurgitation with stenosis inferior to the saphenous valve, and (3) those due to stenosis without regurgitation.

Dr. Alexander Lambert said that some years ago he had been asked to go with an engineer into a caisson to note the effect of the compressed air upon varicose veins. As the engineer came out and the air became thinner and the pressure less, the bulging of his varicose veins was something extraordinary. This engineer had worked a great deal in the caisson, but had not had the caisson disease because of his great care in coming out

of the lock.

Dr. Robert T. Morris said that mention had been made of the return flow being entirely dependent uponthe force of the heart. He asked whether the older idea of the aspirating power of the heart had been entirely abandoned. In doing Schede's operation for varicose veins a circular incision was made about the leg through the skin, veins and subcutaneous tissue. Numbers of very large veins were frequently widely opened. An Esmarch bandage was applied before the incisions were made; if this circular incision were made without the bandage, the patient would bleed to death in a few minutes. If the veins were divided freely and the Esmarch bandage removed without suturing, the flow from the veins would be found not to be excessive. If very slight pressure were made upon the veins which had collapsed after being emptied by the Esmarch bandage, the hemorrhage would cease. In a number of cases in which he had used Schede's operation he had simply sutured the skin without taking the trouble to ligate the large veins, and by making very slight pressure he had been able to control the hemorrhage. tically, however, he had found that there had been a speedy recurrence of the former condition because the ends of the veins had found each other after the operation by cell replacement. It was his custom now to ligate the open veins, not for the purpose of controlling hemorrhage, but to prevent recurrence. In cases of varicose veins in which there was fairly wide dilatation, due to the hydrostatic pressure of the column of blood in the vein, there was hypertrophy of all of the structures at first, but later on there was a dilatation, and it did not seem to him that one could hope for cure from palliative measures after the hypertrophy had passed into the stage of degeneration. He asked the method of determining just when this stage had been reached. In the earlier stages palliative measures were quite effective. Alternate douches for thirty seconds in ice water and very hot water, kept up for two or three minutes twice a day, were very effective, as were also massage, the faradic current and good support. Many of these cases could be well treated without operation.

Dr. Terriberry said that the classification by causes in this particular disease was important on account of its bearing upon the choice of operation. Many observers claimed that any operation which would cut off the column of blood from above was sufficient to cure all cases. Any one who had studied carefully the reported cases would find that many of them were not cured in this way, and that in the majority of instances the failures

were in cases in which varicosity had resulted from constriction below the saphenous valves. The regurgi-tation might be eliminated by the Schede or Trendelenburg operation, but the varicosity remained and the force of the heart's action was expended on the wall The aspirating power of the heart, he thought, depended upon the relative pressure, and the latter in turn depended upon the force of the heart transmitted by the elastic recoil of the arteries. It was highest at the aorta and diminished toward the end of the arterial system. A great deal of it was lost in the capillaries, but there was still enough pressure left in the beginning of the venous system to force the blood onward. Under the influence of inspiration there was, of course, an aspiration in the large veins, but when expiration took place, there were compression and a consequent increase in pressure in these veins. If there was a varicosity in the veins high up in the venous system, this might have an effect when the pressure became negative. The lack of hemorrhage mentioned by Dr. Morris is probably due to the collapse of the emptied veins caused by atmospheric pressure acting through the integument.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Held February 4, 1902.

The President, Joseph Collins, M.D., in the Chair.

A Case of Monocular Exophthalmos.-Dr. J. Arthur Booth presented this case and raised the question as to whether one was justified in making the diag-nosis of Graves' disease. The patient was forty-seven years of age and had never had any serious illness. She had been well up to last fall, when she noticed a blurring of the vision and a change in the appearance of the eye. There was no history of fright; the patient stated that three months ago the left eye was struck by the foot of an infant. Examination showed no enlargement of the thyroid; pulse 96; no decided tremor. Dr. David Webster found both fundi normal and the action of the eye muscles normal. There was retraction of the upper eyelid of the right eye with marked exoph-

Dr. B. Sachs said that he had at present under treatment a married woman, about twenty-three years of age, who after pregnancy had developed unilateral exophthalmos. The case was identical with the present one except that the exophthalmos was on the other side. There was no goiter, and on coming under treatment the pulse was 132. Under treatment, consisting chiefly of rest in bed and the use of mild tonics, the pulse came down to 90 and was no longer intermittent, and the exophthalmos was slightly diminished. In addition, this patient presented the peculiar gastro-intestinal symptoms of Graves' disease, and, in the absence of any other serious condition he could only make the diagnosis of unilateral Graves' disease.

Dr. W. M. Leszynsky said that he had seen two similar cases. One occurred in a man who had exophthalmos, retraction of the upper eyelid and some tachycardia. In the course of six months the usual symptoms of Graves' disease developed and the case ran the usual course. In the other there was unilateral exophththalmos and retraction of the upper eyelid with slight goiter, but without tachycardia. The case followed the usual course of Graves' disease. It did not seem to him unusual in the early stage of Graves' disease to find the exophthalmos only on one side.

Dr. J. Arthur Booth thought it was rather unusual for the eye alone to be affected in the beginning; more commonly there was some tachycardia as the first symp-

A Case of Central Hematomyelia.-Dr. I. Abrahamson presented a man of forty years, a Russian tailor. The man had fallen and struck the back of his head on the floor some weeks previously and a week and a half later had noticed numbness of the little finger of one hand; twenty-four hours after this the entire upper extremity was numb, and the next day both lower extremities were numb and weak; on the fourth day of this trouble there was complete inability to more. The special senses were normal. There was extensive muscle-wasting while in bed, although there was no fever. He recovered in a very short time. Examination showed the pupils equal and the ocular movements normal. There was a tremor of the facial musculature on one side; the tongue was drawn to the right; the reflexes of the upper extremity were exaggerated, especially the triceps. There was a marked flabbiness of the musculature and wasting, especially around the shoulders. The knee-jerks and Achilles jerks were ex-aggerated. There was no spasticity. The volume of the left lower extremity was much greater than that of the right. There was no limitation of the visual field. and no Romberg symptom. On rising from a chair it was necessary for him to assist himself with his hands.

Dr. Joseph Collins said that he had had this case under his observation, and the only diagnosis seemed to him to be a central hematomyelia with the cleavage in an upward direction. The comparatively mild traumatism, the rapid onset of the symptoms, the rapidity of the recovery and the widespread involvement all seemed to him to point to this diagnosis. About two weeks ago the abnormal condition had been much more marked than now. There had been great difficulty in rising from a chair, and he would sit down very sud-

denly. There were no objective sensory disturbances.

A Case of Cerebral Endarteritis, Probably Syphilitic.—Dr. W. M. Leszynsky presented a Hungarian woman, twenty-two years of age. There was no his-tory of rheumatism, trauma or syphilis. Several times recently there had been transient paresis of the left arm and leg, and there had been some regurgitation of food. Shortly before coming under his observation there was severe headache and vertigo associatd with fever and followed by marked ptosis of the left eye. Examina-tion in August showed partial ptosis of the left eye with vertical diplopia; only the left superior rectus muscle was affected; the vision in both eyes was normal. The fifth nerve was normal objectively. Innervation of the facial muscles was feeble on both sides, and there was slight facial paralysis on the right side. She was treated with mercury and iodide, together with gal-vanism and the use of strychnine internally. In ten weeks the ptosis and diplopia had disappeared. The ptosis then attacked the right eye and in three days became complete. The levator was the only muscle affected. The iodide of potassium was resumed, and in four weeks this muscle had almost completely recovered. One month later the lefgt eye was again attacked with ptosis; there was slight vertigo, but no diplopia. At times it was necessary to make several efforts at swallowing before succeeding; she still complained of left-sided headache, and after talking for some time she found it almost impossible to speak, but ability to do so would return after a few minutes' rest. She was now receiving twenty-eight grains of iodide three times now receiving twenty-eight grains or iodide three times a day. There was no history or evidence of syphilitic infection. The case seemed to be a peculiar instance of cerebral endarteritis, probably syphilitic. The iodide had very little effect in controlling the pain.

Cerebrospinal Syphilis.—Dr. Leszynsky also presented a man thirty-three years of age, a driver by occupation. He had been first seen by the speaker in

November, 1899, and up to three months before that had been well. He then experienced numbness in the left side of the face with slight twitching of the facial muscles. Two months later there was diminished vision in the right eye with occasional diplopia. Four months after the numbness began, the first three molar teeth in the right upper jaw became so loose that they were removed with the fingers. He was the father of six healthy children. According to the history, he had many years ago contracted a chancre, but no marked secondary symptoms had appeared. The pupils were found to be markedly contracted and rigid. There was no anesthesia of the conjunctiva; there was good vision in each eye; both fundi were normal. The innervation of the facial muscles was normal and there was no tremor. Mercurial ointment and iodide of potassium were used at first and later strychnine. Three months later he complained of vertigo and diplopia and was found to have complete paralysis of accommodation. At the end of two months he was much improved and disappeared from observation. After sixteen months he returned, and stated that fifteen months previously he had fallen through a hatchway, but had only been severely shaken up. In July, 1901, he was thrown to the ground by a man jumping upon his head from a height. On examination, there was found to be complete paralysis of all branches of the third nerve; both pupils were rigid and he was blind in the right eye. There was advanced atrophy of both optic nerves. He had been taking iodide and strychnine in injections. In this case of cerebrospinal syphilis the optic atrophy was apparently of a primary degenerative type. Strychnine was administered in gradually-increasing doses up to the toxic effect, but it had no beneficial action, and this had been the speaker's uniform experience with it in these cases. The case was of forensic interest because the man was trying to substantiate a claim that the blindness had resulted from the traumatism to the head.

Dr. B. Sachs said that the diagnosis could only lie between cerebrospinal syphilis and tabes, pure and simple. In the former, if the optic nerves were involved there would be a distinct optic neuritis. The important question was as to whether there had been a primary optic degeneration. According to the history, the case was probably one of cerebrospinal syphilis. The first case also seemed to be one of cerebral syphilis, but he doubted if it were an example of syphilitic cerebral endarteritis; it was more than probable a thickening in patches of the meninges of the nerves as they emerge

from the base of the brain.

Dr. Leszynsky said that on account of the transient character of the symptoms it seemed to him that they were, in all probability due to some interference with the circulation. The temporary attacks of aphasia, difficulty in swallowing, and the trouble with the third nerve pointed to some interference with the nutrition of the nuclei. If this interference were with the nerve trunk itself it would be unlikely for the localized meningitis to select certain fibers of the nerve and interfere with the nuclear distribution. In the second case, both Achilles reflexes were present; there were no sensory symptoms—in short, nothing to indicate the presence

Multiple Sclerosis.—Dr. I. Abrahamson presented two cases suggesting multiple sclerosis, though presenting other symptoms. The patients were seventeen and sixteen years old, respectively, a sister and brother. Both parents were well. The children were born without the aid of instruments, but early showed an unsteady gait, slowness of speech and nystagmus. Both children exhibited pronounced stigmata of degeneration. On examination, the gait was unsteady, the pupils were equal, the ocular movements slow and

jerky, and nystagmus was present in all positions. At times, Babinski's symptom was obtainable. There were no sensory disturbances. The speech was slow and monotonous, and there were marked mental defects of the nature of a mild dementia. The fact that these two children, together with another, all belonged to the same family was a point against the diagnosis of multiple sclerosis.

Dr. C. L. Dana said that if these cases were not to be called multiple sclerosis he did not think it would be possible to make that diagnosis from the clinical pic-

ture.

Dr. Joseph Fraenkel said that he had seen the boy when he was brought to the Montefiore Hospital, and had made the diagnosis of multiple sclerosis, but after having watched the case further and obtained a complete history he had been in doubt about the correctness of this diagnosis. At the time of admission the spastic symptoms were very much more marked than at present.

Dr. Sachs said that family forms of multiple sclerosis had been described, yet they did not entirely correspond with the typical picture of multiple sclerosis. They resembled somewhat the Marie type, but he would not make that diagnosis. A progressive disease of this sort occurring in a family with dementia had been reported by one of the porthern Furguesen writers.

by one of the northern European writers.

Dr. Collins said that he would hesitate long before diagnosticating these cases as multiple sclerosis, for the reason that this was opposed to our conception of multiple sclerosis as a pathological entity. It was now looked upon as a disease of early adult life of the nature of a late infection or organic neurosis. In the cases just presented there was, in all probability, a teratological condition. To account for the symptoms there would have to be a large sclerotic area of the poles of the anterior hemispheres, while the posterior and middle parts would have to be almost free, as the special senses were well developed.

Dr. Dana said that as dementia paralytica could be associated with multiple sclerosis in adult life, it was possible that the defective mental development might

exist in childhood.

Dr. J. Ramsay Hunt reported the case of a widow, fifty-three years of age, who had been admitted to the Montefiore Hospital in October, 1886. At this time her disease had lasted for several years. Speech was slow and stammering. She had a spastico-ataxic gait, the Romberg symptom, slight weakness of the upper extremities with ataxia, and considerable motor weakness of the lower extremities. The knee- and ankle-jerks were present and lively on both sides, and the pupils were equal and active on both sides. There were no sensory disturbances and no rectal or bladder symptoms. The ophthalmoscope showed an atrophy. In January, 1809, it was found that she could neither walk nor stand; speech was stammering and syllabic; there was marked intention tremor in the upper extremities; nystagmus was present in all directions except downward. The motor power was defective in the upper extremities and there was resistance to passive move-ments, especially in the legs. The right knee-jerk and left Achilles-jerk were absent. The plantar reflex was present on the right and absent on the left. On postmortem examination, the anterior border of the cal-varium showed a nodular eburnation. The fissures were widened. The stained tissues showed an increase of gliar cells and leucocytes in the gray matter. The cells showed distinct atrophic changes and were somewhat sclerosed. The meninges were thickened and infiltrated with round cells. In the cord were found disseminated plaques of sclerosis. Nowhere in the cord were any distinct signs of inflammation. The specimens from this case were exhibited under the microscope.

Discussion on the Absolute and Relative Frequency of Multiple Sclerosis.—Dr. C. L. Dana said that among 3,000 private cases of which he had histories there were only ten cases of multiple sclerosis. Of about 600 cases at the out-door clinic during the past year there were only two cases diagnosticated as multiple sclerosis, and even these were questionable. In Bellevue Hospital itself 12,000 patients were received annually, and one of his assistants was constantly on the watch for cases of nervous disease, yet he had not found more than one or two new cases of multiple sclerosis each year. It was evident, then, that multiple sclerosis was very rare in private practice and decidedly more rare than in the clinics of Europe. It was possible that mistakes in diagnosis were made in some cases of so-called acute or subacute transverse myelitis coming under observation as chronic transverse myelitis. Some of these cases would probably ultimately prove to be examples of multiple sclerosis; of those he had been able to follow for many years none had terminated in this way. Other cases of multiple sclerosis might have been recorded as ataxic paraplegia, though he did not make this diagnosis. He could call to mind four of these cases in which there was really a combined sclerosis due to some secondary anemia or toxemia. Then there were cases of sporadic forms of retrobulbar neuritis which perhaps develop later into multiple sclerosis. From his experience he was compelled to believe that multiple sclerosis must be more rare here than abroad, possibly owing to the better surroundings of the masses.

Dr. Graeme M. Hammond said that he had spent considerable time in examining the records of both private and dispensary practice. He had examined 3,000 private records and 7,000 records from the clinic, extending over the past ten years. In the former there were 729, or about 25 per cent., with organic diseases. Of these cases, fifteen, or about 2 per cent. had multiple sclerosis. In the clinic cases there were 2,400 of organic diseases, and of these thirty-two had multiple sclerosis, or 1.33 per cent. He could not agree that there was a greater percentage of multiple sclerosis cases in dispensary practice. Of the combined private and dispensary cases forty-seven had multiple sclerosis, or 1.5 per cent.

Dr. Goodhart reported for Dr. M. Allen Starr that he had examined 10,056 cases in the clinic and had found twenty-seven recorded as multiple sclerosis. In six of these the diagnosis was doubtful-in other words, there was one undoubted case in 475. Of the 4,800 males there was one case of undoubted multiple sclerosis in 437; while of the 4,898 females there was one such case in 700. With regard to the age, the records showed that among the males there was only one occurring after the age of sixty, while among the females all developed the disease under thirty-one years of age, the earliest case occurring at the age of sixteen months.

Dr. Sachs said that he had examined the records of 2,000 cases in private practice and had found thirteen undoubted cases of multiple sclerosis and two questionable ones. There were forty-one of tabes dorsalis, sixty-nine of cerebrospinal syphilis, thirty-eight of general paresis, fourteen of intracranial tumors, fifteen of paralysis agitans, thirty-seven of apoplexy and fifteen of infantile cerebral palsy. He thought a faulty im-pression had been found of the relative frequency of the disease in Europe. According to one of the latest European works, the author states that he had seen 5,500 private cases of nervous disease, and in this number had met with thirty-eight cases of multiple sclerosis. This would give one in 144, whereas Dr. Sachs said his own experience gave one in 150. It was most im-portant in considering such figures to know from what classes the material had been drawn. Many cases diagnosticated in this country for the time being as chronic

myelitis were diagnosticated in Europe as incip cases of multiple sclerosis before the characteristic symptoms had developed. With regard to the differential diagnosis, the speaker said it was important to differential diagnosis, the speaker said it was important to differential diagnosis. ferentiate multiple sclerosis from multiple cerebrospi syphilis and also from general paresis, particularly in the later stages. Multiple sclerosis usually began earlier than general paresis and the latter was a much more progressive disorder, the dementia being much more marked. In several cases of cerebral infantile palsy he had been in doubt as to whether there was multiple sclerosis present. There were some cases which had begun as multiple sclerosis and had gone over dis-tinctly into paralysis agitans. He had seen two or three cases in which there was considerable doubt as to whether the correct diagnosis was neurasthenia or multiple sclerosis.

Dr. Leszynsky said that he had no statistics to present, but he would agree with the others that multiple sclerosis is comparatively rare in this country.

Dr. B. Onuf said that he had made the diagnosis of multiple sclerosis in a much larger proportion of cases than the others, for he had seen in hospital between 500 and 600 cases and had made the positive diagnosis of multiple sclerosis in eight cases.

Dr. Edward D. Fisher sent a communication saying that in his clinic at the University, during six years, he had seen out of a total of 2,451 cases of nervous disease, eight cases of multiple sclerosis.

Dr. Collins said that in 1901, 1,470 cases of nervous disease had been seen at his clinic and this number furnished five cases of multiple sclerosis. In 1900, 1,368 cases were seen, of which five were multiple sclerosis. In 1899, there were 1,400 cases, five of multiple sclerosis; in 1898 there were 1,270 cases with three of multiple sclerosis. Thus, in the four years the clinic had been under his personal direction there had been approximately 6,000 cases of nervous disease, with ni teen cases of multiple sclerosis. During this period there had been thirty-seven cases of locomotor ataxia and twenty-nine of paralysis agitans. From 1890 to 1897 there were twenty-eight cases of multiple sclerosis in a total of about 4,000 cases of nervous disease. He had notes of eight cases of multiple sclerosis seen in the City Hospital and not included in the previous figures. This hospital devoted about seventy-five beds to nervous disease, and in this service he had met with about one case of multiple sclerosis a year. In his private practice he had made the diagnosis of multiple sclerosis four times only. According to his own experience, therefore, multiple sclerosis is a very rare organic disease of the nervous system. He had found paralysis agitans one and a half times more frequent and tabes dorsalis about twice as frequent as multiple sclerosis.

Dr. J. Fraenkel said that the statistics of the Montefiore Hospital confirmed very closely those already presented. Out of 2,100 patients at this institution dur-ing the past ten years, about half of them being cases of nervous disease, there had been only eighteen cases of multiple sclerosis. He had been very conservative in making the diagnosis of multiple sclerosis in these cases. Out of about 160 cases of nervous disease at present under treatment there, about thirty-five were cases of tabes and nine cases of multiple sclerosis.

BOOK REVIEWS.

THE STANDARD MEDICAL DIRECTORY OF NORTH AMERICA FOR 1902. Quarto, 925 pages. Illustrated. G. P. Engelhard & Company, Chicago.

This is certainly a splendid volume and the publishers are to be congratulated on their enterprise. The

many points of excellence render this book easily the best in the field. Its form is especially commendable and its many ingenious features stamp it at once as

practicable, authentic, even indispensable.

In addition to its directory of practising physicians in the United States it includes those of Canada, Cuba, Mexico and Central America and further there are included careful and for the most part accurate lists of the medical officers of the Army and Navy, Medical Societies, Medical Colleges, Medical Laws and Boards, Medical Publications, Books and Periodicals, Hospitals and Sanitariums, Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers, Life Insurance Companies, etc., etc. In fact, there is almost everything that a medical directory should con-

Certain omissions there are, and a distinct number among physicians' names, but for a first edition, the results are truly wonderful. Praise alone is its due.

CLINICAL HEMATOLOGY. A Practical Guide to the Examination of the Blood with Reference to Diagnosis. By John C. Da Costa, Jr., M.D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College, Hematologist to the German Hospital. P.

Blakiston's Son & Co., Philadelphia.

PATHOGNOMONIC blood-findings are as yet confined to leucemia, malaria, relapsing fever and filariasis, yet in many conditions the study of the blood adds very important information to that obtained by other methods. This book by its elementary fulness of detail will render such study possible to the many instead of to the specialist only. The working parts of the various kinds of apparatus and their manipulation having been studied minutely, the author plunges, in the first section, into the methods of obtaining the blood, of estimating its alkalinity, specific gravity and hemoglobin, and of counting and staining its cellular elements. The nature and function of normal blood as a whole and departures from the normal fill the second section. The chapter on the leucocytes is at once the most important and the best handled. Leucocytosis is considered as to the absolute increase in the number of white cells and the relative increase of any form of cell; a long list of diseases and drugs which affect the leucocyte-count is appended. Lymphocytosis is attributed to many different conditions, though it is not often marked except in lymphatic leucemia and whooping-cough. Sections follow on the diseases of the blood and the anemias of infancy and childhood, and then a long section is devoted to the detailed study of the blood in appendicitis, cholelithiasis, diabetes, enteric fever, erysipelas, malaria and about sixty other conditions. The Widal reaction is described and figured under enteric fever, the writer regarding as posi tive a reaction with 1-10 serum, though conservative men abroad and in this country require a 1-40 serum reaction. The recent work of Durham and others on serum reactions in paratyphoid infections is not men-

The colored plates and figures in the text are good enough to whet the appetite for more, and the readinglatter in general is conservative, correct and up-todate. The book deserves high commendation.

RATIONAL HYDROTHERAPY. A MANUAL OF THE PHYSIO-LOGICAL AND THERAPEUTIC EFFECTS OF HYDRIATIC PROCEDURES, AND THE TECHNIQUE OF THEIR APPLICA-This forbidding looking volume of 1,200 pages "aims to present in a more systematic and comprehensive way

than has heretofore been undertaken the rational hydrotherapy which has been built up within the last century, and to record the fruits of the author's experience and observations." One might legitimately suppose that a volume of 1,200 large pages would provide ample space to set forth all that the practising physician should know about the use of water in the treatment of disease, but the author thinks otherwise. He says he hopes to publish another volume in which rational hydriatic treatment of individual disease will be discussed.

The book is divided into four parts. Part I. is devoted to a historical note, to the physics of water, air, heat, and light in relation to hydrotherapy, the larger portion of which seems irrelevant; to anatomy and physiology in relation to hydrotherapy about 50 pages, which, if properly pruned and compressed, would undoubtedly reveal many facts worth possessing; to the physiological effects of external and internal application of water; to the physiological effects of friction or mechanical irritation of the skin, and to the physio-logical effects of light. The relevancy of the latter

topic is difficult to determine.

In Part II. the general principles of hydriatics, the therapeutic effects of hydriatic applications, the practical employment of hydrotherapy, and hydriatic in-stitutions are discussed. Part III. is devoted to the technic of hydrotherapy and Part IV. to hydriatic pre-

scription-making.

It is difficult to characterize this volume for it is not wholly without merit. A vast amount of labor has been expended upon it. It lacks particularly the impress of individuality and the stamp of homogeneity. If it had been properly "blue penciled," compressed rewritten with a clear perspective of the relation of hydriatics to the science of medicine and the art of therapy, and presented in a volume of, let us say, 300 pages, it would be deserving of most favorable consideration. As it stands now it most unfavorably impresses the reviewer, an ardent advocate of hydro-therapy, and he fully believes that the deserved reputation of water as a curative agent is not at all enhanced by such publications. Will any one, for instance, fail to recognize the absurdity of describing upward of 200 different hydratic procedures? Why not describe 300 or 600? If one can think out 200 ways he can easily think out double that number, for he has what may be called a numerical faculty. The author's judgment and scientific perspective are not always displayed to advantage in the lugged-in references to the perniciousness of tea, coffee, alcohol and tobacco, often wholly irrelevant. His remarks on these aids to wholesome living and high thinking do credit only to a certain type of mind.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, etc. By Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. Volume IV., Eleventh Series, 1902. J. B. Lippincott Company, Philadelphia

THE present volume of the "International Clinics" contains some very interesting practical articles. The opening special article, "Remarks on Strychnine," by opening special article, Kemaras on Spycanine, by Dr. Jacobi of New York, contains some valuable hints for the practitioner. We venture to quote a very suggestive passage: "This case would prove that the modern maxim, 'Simplicity of prescription, only one drug at a time, no polypharmacy, rely on Nature,' has its unscientific and ridiculous side. Muscle, serous membranes of a superior of a brane, vagus and sympathetic (there is question of a

heart case) may be affected coincidently (sic) or some of them at the same time. Rely on digitalis alone? Yes, if you be sure you want nothing but the stimulation of the pneumogastric. On strychnine alone? Very well, if you want a vasomotor stimulus? Alcohol? If you want to dilate blood-vessels in conditions of spastic anemia occasioned by fright, chill, or sepsis? Atropine? If you have to combat diminution in the number of cardiac contractions. Thus, I might go on teaching the necessity of combining medicines in combined conditions."

There are some excellent articles from foreign contributors. For example, "The Treatment of Mucomembranous Colititis," by Professor Albert Mathieu; "A Modified Technique in the Spinal Injection of Cocaine," by A. Guinard, M.D.; "The Pathogenesis and Prophylaxis of Varicose Veins," by Professor Pierre Delbet; "Clinical Observations on Certain Diathetic Conditions," by Sir Dyce Duckworth; "The Etiology and Treatment of Acute Myelitis," by Professor G. Marinesco, and "Splenectomy for Malarial Cachexia," by Professor Thomas Jonnesco.

The volume closes with a discussion of the methods of keeping case records in private practice, in which Drs. Frederick Packer, Crozer Griffith, Judson Daland, J. K. Mitchell, John H. Musser and Alfred Stengel take part. The article on a description of the methods of investigating the action of drugs scarcely seems to deserve a place in a volume devoted to clinical medicine. The methods described are entirely those of the laboratory and of animal experimentation and have an academic, but scarcely a practical interest; besides they are only the usual methods to be found in any text-book of physiology.

THE SURGICAL AND MEDICAL HISTORY OF THE NAVAL WAR BETWEEN JAPAN AND CHINA DURING 1894-1895. Translated from the Original Japanese Report under the direction of BARON SANEVOSHI, Director General of the Medical Department of the Imperial Japanese Navy, by S. SUZUKEL, Deputy Inspector General of Hospitals and Fleets, Imperial Japanese Navy, Tokio, 1901.

As a work of great interest to military and naval medical men particularly, and but little less so to medical practitioners in general, this work stands out in high relief.

Its contents are well arranged. The battles are first described and then follow brief histories of the killed and wounded, the different regions of the body affected being taken up in their general order. Statistics of Injuries makes a third chapter; Causes of Wounds and their Classification a fourth; Complications, Management of the Wounded, Diseases and Injuries, Sanitary Conditions During the War, and Work in the Naval Hospitals, are the titles of the several remaining chapters.

It is an interesting record, well and picturesquely told and is worthy of much commendation.

STUDIES IN THE PSYCHOLOGY OF SEX: SEXUAL INVER-SION. By HAVELOCK ELLIS. F. A. Davis Company, Publishers, Philadelphia.

THE present volume of studies in the psychology of sex, the second of the series, is the book that aroused so much opposition on its first publication in London. The prosecution was initiated by the police against a bookseller who sold the book and the Recorder of London, sitting as a judge, finally decided that it was not a scientific work and ordered it to be destroyed. Though this was an unfortunate decision, the author did not care to act in opposition to the laws of his

country even as interpreted by amateur judicial experts and declared his intention not to publish any of the further volumes in England.

Needless to say, though the subject may have intensely objectionable features and may certainly not be meant for general reading, it must receive due treatment if medical men and others whose duties require their being brought in contact with sexual perverts shall realize just what the condition is and how to be appreciated. The names of the authorities on the subject, Casper, Ulrichs, Kraft-Ebing, Moll, Schrenck-Notzing and Féré, are too widely and favorably known to permit the thought that they were seekers after notoriety and not true scientists investigating a forbidding but none the less valuable problem in mental pathology.

The present volume contains an excellent review of the subject of sexual inversion to date without indulging in too great pruriency of detail, certainly not any more than is necessary for a proper understanding of the subjects and with suggestions as to the prevention of homosexuality, with special regard to the influence of schools and the treatment of sexual inversion, that cannot but prove of great practical usefulness.

cannot but prove of great practical usefulness. Mr. Ellis' conclusion as to the attitude that must be assumed towards sexual inversion is characteristically straightforward. He puts off the attitude of moral superiority which is common in the literature of this subject and refrains from pointing out how loathsome this phenomenon is, or how hideous that. He says very truly and pertinently, "The physician who feels nothing but disgust at the sight of disease is unlikely to bring either succor to his patients or instruction to his pupils Pathology is but physiology working under new conditions. The stream of Nature still flows into the bent channel of sexual inversion and still runs according to law."

A TEXT-BOOK OF DISEASES OF THE EAR, NOSE AND THROAT. By CHARLES H. BURNETT, M.D., E. FLETCHER INGALS, M.D., and JAMES E. NEWCOME. M.D. J. B. Lippincott & Co., Philadelphia and London.

THE combined effort of these three distinguished authors has resulted in producing a book of unique interest and value. The subject-matter is well handled throughout, there is less unevenness than would be expected, and several of the chapters are masterpieces of clearness, comprehensiveness and practicality. The publisher should also be congratulated upon his part.

Several features of the work call for special mention. Of the 220 pages upon the ear, 75 are devoted to describing its anatomy. This at first would seem disproportionate. No better exposition of the theme, however, has ever been written, while the general ignorance upon the subject which exists justifies the foresight of the author in thus wisely calling attention to it. It is not his fault that the chapter on chronic catarrhal otitis media is unsatisfactory. The baffing nature of this most serious and elusive condition, the difficulty of the subject, and in general the deplorable inefficiency of our present knowledge of this distressing ailment are silently emphasized by what the best authority of his time has been obliged to leave unsaid. The chapter on acute purulent otitis media is classic. It should be learned by heart by every practitioner of medicine. It is sound, forceful and clear and cannot fail to be of great practical value. Chronic otitis media and its sequelæ, otitic abscess and the graver conditions associated with this subject, are ably dealt with. The somewhat radical views expressed regarding removal of the ossicles, especially of the incus, should be acted upon with conservatism by all not eminently qualified to

apply them. Given distinguished ability in diagnosis, exhaustive knowledge of the regional anatomy, combined with highest technical skill, the value of the nmen with nignest technical skill, the value of the general results of these operations is still sub fudice. It would be unfortunate if the average reader were to suppose the removal of the incus were advisable in

any but the most experienced hands.

The author of the section on diseases of the nose and nasopharynx has not contented himself with givng an abridgment of his already well-known work, but has presented the subjects of his department with remarkable freshness and success. The two chapters upon diseases of the accessory sinuses offer the best presentation of this difficult topic which has ever appeared. The subject-matter is terse, comprehensive and accurate, the style clear and direct, and the illustrations full and remarkably instructive.

The chapter on deflections of the nasal septum is less satisfactory. Strange to say, the Asch operation is decried, priority for it is denied, and even the name of its distinguished originator is mutilated. In point of fact, the crucial incision through the septum suggested by Adams bears about the same relation to the method of Asch as does the crude and ineffective tube of Bouchut to the perfected system of intubation of O'Dwyer. Adams' operation was a complete failure. To Asch is due the credit not only of his own admirable suggestions, but of much of the stimulus under which recent advances in the same line have been made.

The other subjects of this section are ably presented. Greater geographical scope in the mention of resorts favorable to hay-fever patients, however, would seem desirable. With regard to the prescribing of snuffs and solutions containing cocaine to patients suffering from various forms of coryza, the views of this author are open to severe censure. It is time that public attention should be strenuously turned to the great danger of this almost certain method of establishing the

most pernicious habit of the age.

The most evenly constructed section of the book is that on diseases of the larynx. It is evidently from the hand of one who has completely mastered the clinical as well as the literary side of the work and it fairly places him among the foremost writers of the day. The chapter on tuberculous laryngitis is particularly valuable.

The illustrations are in general excellent. It would be difficult to find a treatise better suited to practical needs, more comprehensive or more thoroughly abreast

of the time.

OUTLINES OF ANATOMY. A Guide to the Methodical Study of the Human Body in the Dissecting-Room. By EDMUND W. HOLMES. Second Edition. Press of The New Era Printing Co., Lancaster, Pa

Dr. Holmes is well known to thousands of medical students and physicians as a thoroughly practical teacher of anatomy by dissection. His book partakes of his character. It deserves the popularity that de-mands a second edition in five years. It can be recom-mended as a handy guide to dissection.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F.R.S., Lecturer on Anatomy at St. George's Hospital Medical School. Edited by T. PICKERING Pick, F.R.C.S., Consulting Surgeon to St. George's Hospital, etc., and Robert Howden, M.A., M.B., C.M., Professor of Anatomy in the University of Durham, Examiner in Anatomy in the Universities of Durham and Edinburgh, etc. A Revised American from the Fifteenth English Edition. Les Brothers & Co., Philadelphia and New York.

"GRAY'S Anatomy" is so well known that there is little need to say anything further of it and to praise it seems, indeed, like gilding refined gold or painting the lily. It has stood the test of time for nearly half a century and has demonstrated beyond all cavil how well Henry Gray knew how to write a text-book of anatomy.

Something should be said, however, about this new American edition. It is worthy of the old text-book at the beginning of a new century. The publishers in their prefatorial note say that anatomy is far from stationary even in its facts or in improvements in the method of their presentation. Hence, any work which would faithfully reflect the existing position of the science must be revised at comparatively frequent intervals. Fortunately for students and practitioners, "Gray's Anatomy" enjoys a continuous demand rendering frequent revision possible.

This new-century edition has been especially revised in the sections devoted to general anatomy and embryology. "Gray's Anatomy" has always been noted for its practical character and in this matter also special effort seems to have been made to keep it up-to-date. With its 1,250 pages of text, the book is undoubtedly the best work for consultation on the part of the student or the general practitioner. Notwithstanding the special effort made by teachers and compilers of anatomical works in the last few years it is doubtful if any of the recent text-books are as complete, as generally useful, or as thoroughly satisfactory as old "Gray." In its new dress it will prove as helpful to a new generation as it has to several preceding generations. The illustrations are especially well done and the book is gotten up in characteristically good shape by the publishers who have for so many years known how to keep it abreast of the times.

PROCEEDINGS OF THE NINTH ANNUAL MEETING OF MILI-TARY SURGEONS OF THE UNITED STATES, May 13. June I and 2, 1900.

This admirable volume is unusually rich, since it contains many of the doings by land and sea, in Cuba and the Philippines. Many of the long articles are too technical for interpretation by the ordinary surgeon, but even these, in many cases, are so graphically illustrated with charts and other devices as to place their otherwise cumbersome data within the range of the ordinary ken. Of the shorter articles perhaps the most strikingly original is that by Captain Guy Godfrey. In a few lines he explains a practical method of controlling hemorrhage in the arm and axilla which needs no ligature and no apparatus. The method is to raise the arm upward, backward, and inward as far as possible; when the limit of motion is reached the pulse can no longer be felt in the axilla. If it is desired to keep the arm in this position for safety or for operation a clove hitch is taken around the waist with an ordinary roller bandage and tied under the opposite axilla. The posture works better in muscular men than in stout or slender men. Godfrey believes that the circulation is obstructed by the mass of muscle pressing the axillary artery against the clavicle when that artery is bent over

Another interesting series of observations by Cap-tain Miles Standish and Major J. M. Banister on the standard of vision which should be required of enlisted men in the Army and on the extent to which military surgeons should be educated in ophthalmological lines are particularly well timed, because of a similar agita-

tion which is now taking place in the British service.

In Captain C. W. Borden's paper on military surgery
the interesting conclusion is reached that "as many
deaths upon the battlefield may be expected from the

use of the modern small-caliber rifle as from the older fisearms." The lateral destructive effect of the high-velocity bullet is well seen in compact bones, in organs with fluid contents, and in organs containing large quantities of intercellular fluid. At a range of under six hundred yards the presence or absence of fluid in the stomach, bladder, etc., makes all the difference between penetrating and almost harmless wounds and the entire destruction of the viscus. In fine, the ninth volume of these Transactions is a banner contribution and one which every surgeon will be glad to have upon his book-shelves.

SURGICAL TECHNIC. A Text-Book on Operative Surgery. By Fr. Von Esmarch, M.D., Professor of Surgery at the University of Kiel and Surgeon General of the German Army, and E. Kowalzig, M.D., late First Assistant of the University of Kiel. Translated by Professor Ludwig H. Grau, Ph.D., formerly of Leland Stanford, Jr., University, and William N. Sullivan, M.D., formerly Assistant Surgeon of U.S.S. "Corwin." Edited by Nicholas Senn, M.D., Professor of Surgery at Rush Medical College, Chicago. The Macmillan Company, New York and London.

ONE of the chief merits of this book is indicated in that clause of the title page which states the number of illustrations contained in its pages. Their presence in such abundance is explained by a knowledge of the fact that the whole work was originally produced in competition for a prize offered by the German Empress for the best handbook of surgical technic, and it was the author's idea to present his material as much as possible by the graphic method. In his own words, "a glance at an illustration representing a dressing, an operation or an anatomical preparation, enables one to recall to memory most rapidly all former knowledge concerning the same." That this method of compressing an immense amount of information into a comparatively small number of pages is a suitable one which in this instance is adequately exploited is evidenced not only by the award of the prize to the author, but by the universal adoption of the book as a standard by his countrymen, and we are therefore to be congratu-lated upon the fact that its pages have been made accessible to us as well.

The descriptions are everywhere short and to the point, carrying out the motto on the title page "Kurz and Bündig," and, beginning with general considerations on asepsis, preparation of instruments, ligatures, dressing materials, etc., the treatment of clean and infected wounds, bandaging and narcosis take up the regional surgery of the entire body, excepting gynecological operations, and furnish a very excellent commentary on the illustrations. For the most part these, too, are very good, but there are some glaring exceptions which spoil the otherwise admirable appearance of the book. Such are, for example, those on pages 762 and 772 intended to depict the lithotomy and Trendelenburg positions, respectively, but which are so absurd in conception and execution as to be positively ludicrous, while crudity of execution is particularly conspicuous among many of the cuts devoted to operations on the head. The mechanism of the appliance termed "irrigateur à vide bouteille" is rather difficult to comprehend until one realizes that, as pictured on page 21, it is upside down and then the mystery of water flowing up hill is explained. Taken as a whole the chapter on splints is perhaps the most satisfactorily illustrated, though the many ingenious and complicated contrivances shown have to a great extent lost their point now that the tendency is to rely almost wholly on plaster of Paris under the control of the X-ray in the treatment of fractures.

One omission that is surprising in a German book is the absence of any mention in the section on antisepties of Crédé's work on the bactericidal action of silver in soluble and metallic form. For the most part the work of foreign operators receives adequate consideration and many Americans, McBurney, Fowler, Senn, Halsted and O'Dwyer, are mentioned, though the operation to which the latter's name is attached is dismissed in a paragraph stating that, owing to the large number of instruments and constant supervision it requires, it has as yet found but little favor in Germany.

Taken all in all the book combines so many admirable qualities that editor, translators and publishers have done us a service in presenting it, and our thanks are due to each of them. In view of the difficulties of such a task criticism hardly seems fair, yet a little more time and care expended in the translation would have produced a text infinitely more pleasant to read and free from such errors as that Doyen's angiotribe produces a pressure of 2,000 kilometers (p. 247) and that an intravenous infusion of salt solution should be allowed to enter the vessel at the rate of 10 cubic centimeters a second (p. 280).

BOOKS RECEIVED.

The Medical News acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the Medical News will shortly appear.

MALADIES DE LA VOIX. Par André Castex. 8vo, 312 pages. Illustrated. C. Naud, Paris.

SHORT TALKS WITH YOUNG MOTHERS ON THE MAN-AGEMENT OF INFANTS AND YOUNG CHILDREN. By Dr. Charles Gilmore Kerley. 12mo, 262 pages. G. P. Putnam's Sons, New York and London.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. Vol. III. EYE, EAR, NOSE AND THROAT. Edited by Drs. Casey H. Wood, A. H. Andrews, T. M. Hardie. 12mo, 340 pages. Illustrated. The Year-Book Publishers, Chicago.

A MANUAL OF OPHTHALMOSCOPY FOR STUDENTS AND GENERAL PRACTITIONERS. By Dr. J. E. Jennings. 8vo, 180 pages. P. Blakiston's Son & Co., Philadelphia.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR, 1899-1900. 2 Vols. Government Printing Office, Washington.

On DISORDERS OF ASSIMILATION, DIGISTION, etc. By Sir Lauder Brunton. 8vo, 495 pages. Illustrated. The Macmillan Company, New York.

THE STANDARD MEDICAL DIRECTORY OF NORTH AMERICA FOR 1902. Quarto. 924 pages. G. P. Engelhard & Company, Chicago.

THE ACCESSORY SINUSES OF THE NOSE. By Dr. A. Logan Turner. 8vo, 211 pages. Illustrated. Longmans, Green & Co., New York.

DISEASES OF THE INTESTINES. By John C. Hemmeter. Vol. I, 8vo, 742 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. Vol. III. 12mo, 346 pages. Illustrated. The Year-Book Publishers, Chicago.

THE ELEMENTS OF PHYSICAL CHEMISTRY. By Harry C. Jones. 8vo, 565 pages. The Macmillan Company, New York.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSO-CIATION. Fifteenth Session. Vol. XIV. Philadelphia.